TEXAS MARINE SPORT-HARVEST MONITORING PROGRAM OPERATIONS MANUAL

2011-12 Survey Year

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Coastal Fisheries Division
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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

Page

TABLE OF CONTENTS
(Continued)

LIST OF FIGURES

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

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

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

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.

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 file is updated each season based on current information regarding changes at boat-access sites.

INTERVIEW SITE SAMPLING (Continued)

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.

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).

INTERVIEW SITE SAMPLING (Continued)

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 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.

NOTE: Do not fill out data sheets for surveys missed because of tropical weather or other natural disasters that essentially prevent a reasonable expectation of fishing pressure in the bay system prior to, during, and after the event. These survey days will not be rescheduled and the number of weekend days and weekdays in a season will be reduced accordingly when generating sportfishing effort and landings estimates. An e-mail will be sent 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.

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.

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).

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.

During all surveys, a TPWD vehicle shall be present and a TPWD Fisheries Survey

DUTIES OF INTERVIEWER (Continued)

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 (in all cases) or people (in most cases) are offloaded. A trip also ends when a party returns to a survey site to pick-up additional party members.

For each boat party that completes a trip, interview party and examine landings (if any) to obtain all required information. Interviewers must personally identify, measure, and count all sport-boat landings (i.e., angler assistance should not be sought or accepted).

DUTIES OF INTERVIEWER (Continued)

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.

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

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 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, and examine catch to estimate number present of each species.

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).

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).

DUTIES OF INTERVIEWER (Continued)

NOTE: If a portion of a sportfishing party's landings 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: 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 "TI" ID number, activity of 8, and trailer location of 2. Use same trip length for both interviews.

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: Do not ignore government- or university-sanctioned parties. Code these with an activity of 10.

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.

DUTIES OF INTERVIEWER (Continued)

NOTE: For commercial-fishing parties (activities 11, 12, 14, 16, 17 and 18), conduct full interviews even if all or portion of catch was off-loaded elsewhere; ask fisherman for type and total amount of 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

Step	Blank	Action
1	**Major Area**	Enter numerical code of major bay system where survey is conducted (codes: Figure 6).
2	**Minor Bay**	Enter numerical code of minor bay where survey is conducted (codes: Figure 6).
3	**Station**	Enter numerical code of survey site (codes: Figure 7).
4	**Completion Date**	Enter ending date of survey as month (1-12), day (1-31) and year (four digits), using a dash to separate each.
5	**Completion Time**	Enter ending time of survey using 24-hour system. Do not use a separating colon between hours and minutes. **NOTE:** For nomograph-canceled surveys, enter 1001.
6	**Stratum**	Enter numerical code 82 (Figure 8).

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
7	**Day Type**	Enter two-digit numerical code for day type. 1st digit = holiday (1) or non-holiday (2) (Only New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day are considered holidays.); 2nd digit = day of week (Saturday = 1, Sunday = 2, Monday = 3, Tuesday = 4, Wednesday = 5, Thursday = 6, and Friday = 7).
8	**User Defined Field**	Enter a 9 if survey is a "gulf-only" survey; otherwise leave blank.
9	**Page**	Enter page number.
10	**Total Pages**	Enter total number of pages in survey.
11	**Special Studies Code**	Leave blank.
12	**Comments**	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. **NOTE:** Record line numbers to differentiate comments.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
13	**ID Number**	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. **NOTE:** If documentation number or boat name has greater than six digits or letters, record entire documentation number or boat name in comments section. **NOTE:** 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. **Do not enter duplicate "TI/interview time" ID numbers on a survey.** **NOTE:** If no interviews were conducted during a survey, you must enter **"NONE"** in the first box of line 1.
14	**Interview Time**	Enter beginning time of interview using 24-hour system. Do not use a separating colon between hours and minutes. **NOTE:** For missed parties (activities 94, 95, 96, 97, 98, and 99) enter time when party missed.
15	**Trip Length**	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 include explanation in comments section.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: 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.
		NOTE: 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.
		NOTE: 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.
		NOTE: 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.
16	**Activity**	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 fishing activity (see seventh 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 include explanation in comments section.
		NOTE: If a party participated in a fishing tournament, enter 3. This does not include long-term events such as the coastwide STAR tournament.
		NOTE: For guided tournament fishing, enter 2, rather than 3.
		NOTE: 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.
		NOTE: For divers using spear guns, enter 1, rather than 9.
		NOTE: 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.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		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: 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.
		NOTE: For missed or refused hunting parties, use code 94 instead of codes 97, 98, and 99, and provide explanation in comments section.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: For missed or refused activity 2 parties, use code 95 instead of codes 97, 98, and 99, and provide explanation in comments section.
		NOTE: For missed or refused commercial parties, use code 96 instead of codes 97, 98 and 99, and provide explanation in comments section.
17	**Origin**	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).
		NOTE: 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.
		NOTE: 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.
		NOTE: For residence codes with one or two digits, enter leading zeros to obtain three digits.
		NOTE: Use a separate line for each different residence code. Do not repeat a residence code within an interview.
		NOTE: 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.
		NOTE: If a party member is a temporary resident of Texas (e.g., a Winter Texan), determine state or country of residence based on the party member's permanent residence.
		NOTE: 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.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
18	**Minor Bay**	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). 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 include explanation in comments section. **NOTE:** 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. **NOTE:** 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.
19	**Gear**	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 include explanation in comments section. **NOTE:** If landings present, record only the gear(s) used to capture the landings. **NOTE:** 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. (Exceptions: If a portion of the landings is bait fish or bait shrimp, record both 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 both the gear used to capture the crabs or oysters and the gear used to capture the fish.) **NOTE:** Two gear codes may be used in sequence with the highest numeral recorded first (e.g., rod and reel, and gig = 21). **NOTE:** If a gear combination cannot be coded with two digits, enter 99. **NOTE:** Do not record landings separately by gear code. **NOTE:** Use code 9 (other) for oysters gathered by hand.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: Use code 44 (baitfish trap) for organisms caught in a baitfish trap.
		NOTE: If code 9 (other) or 99 (combination) is used, describe gear in comments section.
		NOTE: Do not record gear for hunted landings.
		NOTE: Do not record the gear used to catch bait shrimp or bait fish unless some were retained and landed.
20	**Bait**	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 include explanation in comments section.
		NOTE: If landings present, record only the bait(s) used to capture the landings.
		NOTE: 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 (Exception: If crabs represent greater than 85% of landings and fish are present, then record both the bait used to capture the crabs and the bait used to capture the fish.).
		NOTE: Two bait codes may be used in sequence with the highest numeral recorded first (e.g., dead shrimp and live shrimp = 10).
		NOTE: If a bait combination cannot be coded with two digits, enter 99.
		NOTE: Do not record landings separately by bait code.
		NOTE: Do not record a bait code when gear code is 0, 2, 3, 4, 5, 11, or 55.
		NOTE: 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).
		NOTE: If code 6 (other) or 99 (combination) is used, describe bait in comment section.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: 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).
21	**Trailer Location**	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 include explanation in comments section. **NOTE:** For interviews conducted at ramp sites, use code 2 when there is no trailer and the boat is loaded on the vehicle. **NOTE:** For interviews with two (or more) boats loaded on one trailer, use code 1 for one boat and code 2 for other boat(s). **NOTE:** For interviews conducted at docking sites, use code 3 when a slip is rented or code 2 when a slip is not rented. **Do not use code 3 at sites where slips are not counted during roves.** **NOTE:** For interviews conducted at dry storage sites, use code 4 when a slot is rented or code 2 when a slot is not rented. **Do not use code 4 at sites where slots are not counted during roves.** **NOTE:** Use code 5 only when the ramp adjacent to the wet slip or boat house is part of the same survey site. **Do not use code 5 at sites where wet slips and dry storage slots are not counted during roves.**
22	**User Def. Field A**	Leave blank.
23	**Trip Grade**	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?" **Question must be asked before the Species Sought question. Question must be asked verbatim.** 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.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		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	**Species Sought**	For activity 1, 2 and 3 interviews, ask the same randomly selected interviewee "Were you fishing for a particular type of fish today?" **Question must be asked after the Trip Grade question. Question must be asked verbatim except as noted below.** Exact question wording also located at bottom of interview data sheet (beginning with November 2009 version). **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". 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?" 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

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		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	**User Def. Field D**	Leave blank.
26	**User Def. Field E**	Leave blank.
27	**Estimated Commercial Weight**	If weight is estimated (reported) by interviewed commercial fisherman, enter a check mark in User Defined Field **F**.
		NOTE: 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.
		NOTE: A check mark should also be entered for an estimated or reported number of captured bait fish associated with sport or commercial fishing.
		NOTE: Do not enter check marks when conversion factors are used to determine weights from actual observations.
		NOTE: Do not enter check marks for weights of bought bait shrimp on sportfishing interviews.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
28	**Species Name**	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). **NOTE:** 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). **NOTE:** 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 not identify down to genus/species based solely on what the angler says. **NOTE:** For landings of shrimp that can not be individually examined for species identification, enter Fpenaeidae for Family Penaeidae. **NOTE:** 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). **NOTE:** 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. **NOTE:** 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.
29	**Species Code**	Enter numerical code of species landed (codes: Figure 14). **NOTE:** To reduce coding errors, first record species name then species code when conducting an interview. **Do not record only species code for later recording of species name.**
30	**Number**	Enter total number (not to exceed 999,999) of each species landed (retained) from the trip. **NOTE:** Do not include fish released alive at interview site.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: If fillets present, they should be counted and the total count divided by two to determine number of fish.
		NOTE: For live bait fish captured by non-commercial parties, examine catch to estimate number present of each species.
		NOTE: 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.
		NOTE: If possible, obtain the total number of recreational blue crabs landed. Total numbers are not required for commercial blue crabs, or for sport and commercial oysters and shrimp landed (except where appropriate as bait shrimp).
		NOTE: For recreational stone crabs, enter total number of claws landed and acknowledge in comments section.
		NOTE: 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.
31	**Weight**	Enter total weight (to nearest 0.01 kg) of each species landed when required. If a total weight is recorded, do not record lengths.
		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.
		Conversion to kilograms does not change actual observations or measurements into estimated values.
		NOTE: 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).

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action

NOTE: For landings weighed in pounds, multiply by 0.454 to convert to kilograms.

NOTE: 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).

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.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		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 shrimp in comments section unless such weights are greater than 2 pounds.

NOTE: 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.

32 **Length**

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.

Only fish and recreationally-caught blue crabs should be measured.

Fish total length is tip of snout (mouth closed) to tip of longest caudal ray (caudal fin compressed).

Fish standard length is tip of snout (mouth closed) to base of caudal peduncle.

Fish fork length is tip of snout (mouth closed) to center of fork in caudal fin.

Skates and rays total length is maximum wingspan.

Crab total length is lateral spine tip to lateral spine tip.

DUTIES OF INTERVIEWER (Continued)

Figure 2. How to Complete Interview Data Sheet (Continued)

Step	Blank	Action
		NOTE: Total lengths are preferred.
		NOTE: 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.
		NOTE: If more than six specimens of a species are present, randomly select six for measurement.
		NOTE: If six or less specimens of a species are present and one or more cannot be measured, then document in comments section.
		NOTE: If fish present and lengths not obtained, then document reason in comments section.
		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

Step	Blank	Action
1	**Major Area**	Enter numerical code of major bay system where survey is conducted (codes: Figure 6).
2	**Minor Bay**	Enter numerical code of minor bay where survey is conducted (codes: Figure 6).

DUTIES OF INTERVIEWER (Continued)

Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)

Step	Blank	Action
3	**Station**	Enter numerical code of survey site (codes: Figure 7).
4	**Alt.**	Enter numerical code 2 only if field conditions on day of survey necessitated use of an alternate site (see page 4 for instructions on Alternate Site Changes).
5	**Gear/Stratum**	Enter numerical code 82 (Figure 8).
6	**Gear Size/ Day Type**	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	**Completion Date**	Enter ending date of survey as month (1-12), day (1-31), and year (four digits), using a dash to separate each.
8	**Completion Time**	Enter ending time of survey using 24-hour system. Do not use a separating colon between hours and minutes. **NOTE:** For nomograph-canceled surveys, enter 1001.
9	**Special Studies Code**	Leave blank.
10	**Surface Area**	Leave blank.
11	**Start Date**	Enter starting date of survey as month (1-12), day (1-31), and year (four digits), using a dash to separate each.
12	**Start Time**	Enter starting time of survey using 24-hour system. Do not use a separating colon between hours and minutes. **NOTE:** For nomograph-canceled surveys, enter 1000.
13	**Lighting Conditions**	Leave blank.
14	**Latitude**	Enter latitude of survey site (Figure 7).
15	**Longitude**	Enter longitude of survey site (Figure 7).
16	**Wind Speed**	Enter wind speed (nearest mph) at start of survey. If no wind, enter a zero.
17	**Wind Direction**	Circle numerical code of wind direction at start of survey, unless wind speed is zero.

DUTIES OF INTERVIEWER (Continued)

Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)

Step	Blank	Action
18	**Cloud Cover**	Leave blank.
19	**Barometric Pressure**	Leave blank.
20	**Precipitation**	Circle numerical code of precipitation at start of survey.
21	**Fog**	Circle numerical code of fog at start of survey.
22	**Wave Height**	Leave blank.
23	**Tide**	Leave blank.
24	**Shallow Water Depth**	Leave blank.
25	**Deep Water Depth**	Leave blank.
26	**Maximum Station Water Depth**	Leave blank.
27	**Temperature**	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. **NOTE:** Below-zero temperatures should be recorded with a preceding negative sign (e.g., -1.5). **NOTE:** 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	**Dissolved Oxygen**	Leave blank.
29	**Salinity**	Leave blank.
30	**Turbidity**	Leave blank.

DUTIES OF INTERVIEWER (Continued)

Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)

Step	Blank	Action
31	**Bottom Type**	Leave blank.
32	**Personnel**	Enter name(s) of person(s) present at beginning of survey (first initial and full last name).
33	**Authority Notified and Date**	Leave blank.
34	**Lighting Conditions**	Leave blank.
35	**Latitude**	Leave blank.
36	**Longitude**	Leave blank.
37	**Wind Speed**	Enter wind speed (nearest mph) at end of survey. If no wind, enter a zero.
38	**Wind Direction**	Circle numerical code of wind direction at end of survey, unless wind speed is zero.
39	**Cloud Cover**	Leave blank.
40	**Barometric Pressure**	Leave blank.
41	**Precipitation**	Circle numerical code of precipitation at end of survey.
42	**Fog**	Circle numerical code of fog at end of survey.
43	**Wave Height**	Leave blank.
44	**Tide**	Leave blank.
45	**Shallow Water Depth**	Leave blank.
46	**Deep Water Depth**	Leave blank.
47	**Maximum Station Water Depth**	Leave blank.

DUTIES OF INTERVIEWER (Continued)

Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)

Step	Blank	Action
48	**Temperature**	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. **NOTE:** Below-zero temperatures should be recorded with a preceding negative sign (e.g., -1.5). **NOTE:** See step 27 for guidelines on proper temperature measurement.
49	**Dissolved Oxygen**	Leave blank.
50	**Salinity**	Leave blank.
51	**Turbidity**	Leave blank.
52	**Bottom Type**	Leave blank.
53	**Personnel**	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	**Sample Disposition**	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

Step	Action
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.

DOUBLE SURVEYING A SITE (Continued)

Figure 4. How to Double Survey a Site (Continued)

Step	Action
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" at top of each Meteorological and Hydrological Data sheet. **NOTE:** 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 broad felt-tip red marker for this purpose.** **NOTE:** 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. **NOTE:** 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).
5	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). **NOTE:** If minor bay codes from one bay system and the gulf are recorded in an interview, retain all lines of the interview on data sheets for that bay system.
6	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). **NOTE:** 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.

DOUBLE SURVEYING A SITE (Continued)

Figure 4. How to Double Survey a Site (Continued)

Step	Action
7	For each set of interview data sheets, eliminate pages with all data scratched out, and then renumber pages as necessary.
8	The team that conducts the survey submits the completed data sheets for both 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.

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.

ROVING COUNTS (Continued)

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.

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.

DUTIES OF ROVING COUNTER (Continued)

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.

The count order is determined by starting at opposite ends of the rove list on alternate rove days for each day type.

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:** 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

Step	Blank	Action
1	**Major Area**	Enter numerical code of major bay system where roving count is conducted (codes: Figure 6).
2	**Minor Bay**	Enter 0.
3	**Completion Date**	Enter ending date of roving count as month (1-12), day (1-31), and year (four digits), using a dash to separate each.

DUTIES OF ROVING COUNTER (Continued)

Figure 5. How to Complete Roving Count Data Sheet (Continued)

Step	Blank	Action
4	**Completion Time**	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	**Stratum**	Enter 82 (Figure 8).
6	**Day Type**	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.
7	**User Defined Field**	Leave blank.
8	**Page**	Enter the page number.
9	**Total Pages**	Enter total number of pages of roving count.
10	**Special Studies Code**	Leave blank.
11	**Comments**	Use this section to provide additional information relevant to rove (e.g., counting sites outside the 0800-1230 rove period and non-counting of closed sites).
12	**Station**	List sites in the order they are to be counted. **NOTE:** 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. **NOTE:** 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.

DUTIES OF ROVING COUNTER (Continued)

Figure 5. How to Complete Roving Count Data Sheet (Continued)

Step	Blank	Action
13	**Count Time**	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	**Total Count**	Enter total number of boat trailers **attached** and **unattached** (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. **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.

DUTIES OF ROVING COUNTER (Continued)

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.

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

Step	Personnel	Action
1	**Sampling Crew**	Records survey and roving count data in a legible manner on appropriate sheets.
2	**Ecosystem Team**	Carefully edits all data-sheet fields and confirms legibility of all entries. Retains photocopy of all sheets and sends original data sheets to Regional Editor **within seven (7) working days** (i.e., does not include weekend days or TPWD-approved holidays).
3	**Regional Editor**	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. Carefully edits data sheets for key-field errors. Scans data sheets for other errors. 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.

DUTIES OF COASTAL FISHERIES PERSONNEL (Continued)

Step	Personnel	Action
		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	**Data Entry Clerk**	Keys original data sheets into computer database Holding File.
		Returns original data sheets to appropriate Regional Editor.
5	**Regional Editor**	Prints edit listings.
		Sends original data sheets and edit listings to Ecosystem Teams for editing.
6	**Ecosystem Team**	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).
7	**Regional Editor**	Makes on-screen corrections to Holding File based on marked edit listings.
		Verifies that all flagged entries have been addressed.
		Runs Pre-Transfer Edit procedure to detect records with unacceptable values for certain variables.

DUTIES OF COASTAL FISHERIES PERSONNEL (Continued)

Step	Personnel	Action
		Resolves records with unacceptable values, if any, by making on-screen corrections to Holding File.
		Runs Batch Report procedure to verify that number of pages sent for keying equals number of pages entered.
		Resolves page discrepancies, if any, by making on-screen corrections to Holding File.
		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).
		Sends original data sheets in ascending date order (i.e., older on top and newer on bottom) to Program Leader.
8	**Program Leader**	Runs Pre-Transfer Edit procedure to detect records with unacceptable values for certain variables.
		Runs Batch Report procedure to verify that number of pages sent for keying equals number pages entered.
		Makes additional corrections to Holding File as needed.
		Transfers data from Holding File to Master File.
		Makes corrections to Master File as needed.
		Retains original data sheets until data are summarized and annual report is prepared, and then returns original data sheets to Ecosystem Teams.

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 raw 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.

Bay System	Code	Description
Sabine Lake	1	All waters, including all saltwater bayous, bounded by a line behind the surfline 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.
Galveston	2	All waters, including all saltwater bayous, bounded by a line behind the surfline 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.
East Matagorda	9	All waters behind the surfline 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.
Matagorda	3	All waters, including all saltwater bayous, between the surfline 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.
San Antonio	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)

Bay System	Code	Description
Aransas	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.
Corpus Christi	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.
Upper Laguna Madre	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.
Lower Laguna Madre	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.

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 = 10 miles	998
		Gulf off Sabine Lake greater than 10 miles	999
		Gulf off Galveston-Freeport less than or = 10 miles	990
		Gulf off Galveston-Freeport greater than 10 miles	991
		Gulf off Matagorda-San Antonio less than or = 10 miles	992
		Gulf off Matagorda-San Antonio greater than 10 miles	993
		Gulf off Aransas-Corpus Christi-upper Laguna Madre less than or = 10 miles	994
		Gulf off Aransas-Corpus Christi-upper Laguna Madre greater than 10 miles	995
		Gulf off lower Laguna Madre less than or = 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.

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
SABINE LAKE	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
GALVESTON BAY		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
GALVESTON BAY	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

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
GALVESTON BAY	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

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
GALVESTON BAY	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
MATAGORDA BAY	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

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
MATAGORDA BAY	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
SAN ANTONIO BAY	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

 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

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
ARANSAS BAY	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
CORPUS CHRISTI BAY	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 (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

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

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
UPPER LAGUNA MADRE	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
LOWER LAGUNA MADRE	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

 Figure 7. Boat-Access Site Codes

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Sabine Lake	714	1		29°47'26"	93°44'59"	Johnson's Bayou Landing Public Ramp (Louisiana)
	700	2		29°46'04"	93°53'33"	Lake Sabine Causeway Public Ramp (Louisiana side)
	700	3		29°45'54"	93°53'53"	Lake Sabine Causeway Public Ramp and adjoining shoreline (Texas side)
			(4)			(Pleasure Island Marina Docks F & G - Deleted 11/21/08)
	700	**5		29°52'06"	93°55'40"	Pleasure Island Marina Dock A (56 wet slips)
	700	6		29°52'02"	93°55'18"	Pleasure Island Marina Public Ramp
			(7)			(Pleasure Island North Levy Ramp - Deleted 11/21/93)
			(8)			(Sea Rim State Park Ramp - Deleted 5/15/94)
	714	9		29°42'39"	93°51'38"	Texas Bayou Public Ramp
	710	10		29°44'04"	93°52'30"	Sabine Pass Battleground State Historic Site Ramp
	701	11		29°45'35"	93°56'09"	Keith Lake Ramp
	714	12		29°49'27"	93°57'53"	Public Ramp at ICWW and State Hwy. 87
	700	13		29°59'53"	93°57'07"	Port Neches Park Public Ramp
	714	*14		29°58'12"	93°52'27"	Ancelet's Marina Ramp (includes adjacent wet slips)
	714	15		29°59'48"	93°52'04"	Rainbow Bridge Public Ramp
			(16)			(Bailey's Fish Camp Ramp - Deleted 11/21/07)
			(17)			(LeBlanc's Ramp - Deleted 11/21/95)
	714	*18		30°03'54"	93°44'54"	Orange Boat Club Ramp (includes wet slips and adjacent bulkhead)
			(19)			(River Road Marina Ramp - Deleted 5/15/96)
	710	20		29°44'22"	93°53'21"	Broadway Public Ramp
	714	21		30°03'57"	93°44'50"	Lottie's Landing Ramp
			(22)			(Pleasure Island Commission Ramp - Deleted 5/15/99)
			(23)			(Toup's Marina Ramp - Deleted 11/21/08)
			(24)			(Firestone Club Ramp (2 ramps) - Deleted 5/15/08)
			(25)			(Sabine Yacht Basin Ramp - Deleted 5/15/91)
			(26)			(Sabine Yacht Basin Docks - Deleted 5/15/91)
	714	27		30°03'52"	94°03'06"	Public ramp near GSU Neches Power Plant
	714	28		29°42'48"	94°18'53"	Russel's Landing Public Ramp
	714	29		30°04'12"	93°44'42"	Allen's Marina Ramp
			(30)			(Taylor's Bayou Ramp - Deleted 5/15/90)
			(31)			(Percy's Ramp - Deleted 11/21/90)
			(32)			(Waterfront Restaurant Ramp - Deleted 11/21/90)
	714	33		30°02'31"	93°48'14"	Public ramp off Carpenter Road at Cow Bayou
	714	34		29°58'10"	93°54'54"	Public ramp off Sara Jane Road at bridge over dredged canal
			(35)			(Ramp at base of Rainbow Bridge - Deleted 11/21/93)
	714	36		30°00'04"	93°51'59"	Entergy Canal Public Ramp (northeast approach to bridge over canal)
	710	37		29°45'51"	93°53'52"	Mesquite Point Ramp
	714	38		30°02'48"	93°49'17"	Cow Bayou Public Ramp
	700	39		29°51'35"	93°55'49"	Logan Park Public Ramp
	714	40		30°02'15"	93°47'42"	Albair's Ramp
	710	**41		29°44'08"	93°52'57"	Sabine Pass Port Authority Marina Docks (6 docks with 87 wet slips)
	714	*42		30°03'53"	93°44'49"	Muddy Waters Ramp (south side of Adams Bayou bridge) (includes adjacent bulkhead)
	700	43		30°05'45"	93°43'29"	City of Orange Public Ramp

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

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

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
A site number preceded by two asterisks indicates wet slips or dry storage at site counted on roves. Trailer Location codes 3, 4, and 5 may be used at site.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

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

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Galveston (Cont'd.)			(45)			(Shoreline Public Launching - Deleted 9/1/80)
			(46)			(San Luis Pass Bait Camp Ramp - Deleted 5/15/82)
	350	47		29°07'50"	95°04'26"	Bay Harbor Ramp
			(48)			(Terramar Beach Private Ramp - Deleted 11/21/94)
	350	49		29°08'39"	95°02'51"	Sea Isle Ramp
			(50)			(Jamaica Beach Marina Ramp - Deleted 11/21/85)
	350	51		29°11'20"	94°58'47"	Jamaica Beach Ramp
		52				Boat trailers at non-designated launching sites
	350	53		29°12'26"	94°56'58"	Marina at Lafitte's Harbour Ramp
			(54)			(Pirate's Beach Ramp - Deleted 5/15/93)
	350	55		29°15'53"	94°53'59"	8-Mile Road Bait Camp Ramp
			(56)			(73rd Street County Park Ramp - Deleted 7/28/81)
	350	57		29°17'07"	94°50'11"	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		29°17'22"	94°52'26"	Galveston Bait and Tackle Camp Ramp
			(63)			(Jim Reid's Ramp - Deleted 11/21/85)
			(64)			(Shirley's Cafeteria Ramp - Deleted 5/15/04)
			(65)			(Johnson Road Ramp - Deleted 3/20/78)
			(66)			(Bolivar Bait Camp Ramp - Deleted 11/21/08)
			(67)			(2-J's Harbor Ramp (Demi-John) - Deleted 11/21/89)
			(68)			(B&P Bait Camp Ramp - Deleted 7/15/81)
			(69)			(Bob's Camp Ramp - Deleted 9/6/79)
	150	70		29°28'53"	94°36'16"	Stingaree Marina Ramp
			(71)			(Chocolate Bayou Marina Ramp - Deleted 8/31/75)
	286	72		29°30'55"	94°30'43"	L. K. Lauderdale County Ramp
	330	73		29°32'46"	94°47'13"	Smith Point Ramp (Van-Et-Un and Robbin's Park)
	330	74		29°39'11"	94°41'30"	Oak Island County Ramp
	330	75		29°45'07"	94°41'32"	Fort Anahuac Park Public Ramp
			(76)			(Anahuac State Ramp - Deleted 12/1/78)
			(77)			(Crawley's Bait Camp Ramp - Deleted 11/21/08)
	141	78		29°27'46"	94°58'23"	Dickinson Bayou State Hwy. 146 Bridge Public Ramp
	63	79		29°48'30"	94°48'28"	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 2011.

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

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Galveston (Cont'd.)	172	**133		28°57'45"	95°17'28"	Bridge Harbor Canal Dock A (34 wet slips; party boats)
	172	**134		28°57'43"	95°17'30"	Bridge Harbor Canal Docks B and C (70 wet slips; party boats)
			(135)			(Bridge Harbor Canal Dock C - Deleted 5/15/85)
	172	**136		28°57'41"	95°17'34"	Bridge Harbor Canal Docks D and E (76 wet slips; party boats)
	172	**137		28°57'40"	95°17'36"	Bridge Harbor Canal Docks F, G, H, and I (85 wet slips; party boats)
			(138)			(Harbor Cove Docks - Deleted 11/21/83)
			(139)			(Payco Marina Docks C, CC, and F - Deleted 11/21/08)
			(140)			(Lutes Marina Boat House - Deleted 11/21/99)
			(141)			(Beach Bait and Tackle Ramp - Deleted 5/15/07)
			(142)			(San Leon Marina Boat Sheds - Deleted 5/15/95)
			(143)			(Bonno's Bait Camp Ramp - Deleted 5/15/85)
			(144)			(El Jardin Private Ramp - Deleted 11/21/94)
	570	145		28°58'00"	95°22'23"	Freeport New Brazos River Public Ramp
			(146)			(Key Largo Ramp - Deleted 11/21/89)
			(147)			(Texas City Dike Marina Lift - Deleted 5/15/95)
			(148)			(Public Ramp just East of Cedar Cut - Deleted 5/15/85)
			(149)			(Public Ramp just West of Cedar Cut - Deleted 11/21/94)
			(150)			Not previously assigned
			(151)			(The Galley Ramp - Deleted 11/21/97)
	111	152		29°30'42"	95°06'10"	Walter Hall County Park Ramp (League City)
	141	153		29°27'22"	95°02'51"	Dickinson Bayou County Ramp (State Hwy. 3)
			(154)			(Payco Marina Dock D - Deleted 11/21/08)
	201	155		29°20'08"	95°01'23"	Hitchcock Public Ramp
	570	156		28°56'47"	95°22'50"	New Brazos River State Hwy. 36 Bridge Public Ramp
			(157)			(Lea's Bolivar Bait Camp Ramp - Deleted 11/21/04)
	350	158		29°15'33"	94°54'40"	Sportsman Road Ramp
			(159)			(Dan's Ramp - Deleted 11/21/00)
	111	160		29°32'53"	95°01'20"	Ben Blackledge Public Ramp (under State Hwy. 146, Kemah side)
			(161)			(Gulf Coast Guide Service Dock - Deleted 11/21/08)
			(162)			(Ermin Pilsner Public Ramp - Deleted 11/21/08)
			(163)			(Clear Lake Parkside Lift - Deleted 5/15/07)
			(164)			(Cold Pass Marina Ramp - Deleted 11/21/01)
			(165)			(Sneak'N Out Ramp - Deleted 11/21/07)
			(166)			(Club Nautico at Payco Marina (rent boats only) - Deleted 5/15/92)
			(167)			(Bay Oaks Harbor Private Ramp - Deleted 11/21/94)
	172	168		28°57'22"	95°17'39"	Bridge Bait Ramp
	350	**169		29°08'42"	95°02'49"	Bayview Marina Ramp (includes 4 docks with 62 wet slips)
	180	170		29°23'21"	94°45'35"	Hornbeck's Bait Camp Ramp
	150	171		29°36'49"	94°31'43"	Anahuac National Wildlife Refuge Oyster Bayou Ramp
	150	172		29°34'30"	94°33'21"	Anahuac National Wildlife Refuge Bay Ramp
	111	173		29°32'06"	95°05'41"	League City Farm Road 270 Public Ramp
	111	174		29°33'03"	95°01'24"	Seabrook State Hwy. 146 Bridge Public Ramp
			(175)			(Quintana Public Ramp - Deleted 5/15/05)
	180	176		29°25'19"	94°53'23"	Dollar Point Public Ramp

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Galveston (Cont'd.)	312	177		29°42'45"	94°59'32"	V. H. "Buddy" McBride Public Ramp
	172	**178		28°57'42"	95°17'31"	Bridge Harbor Canal Dock X (30 wet slips; party boats)
			(179)			(Red Tin Building Ramp - Deleted 11/21/08)
	312	180		29°43'59"	94°59'08"	Eddie Gray Wetlands Center Public Ramp
	92	181		28°56'34"	95°18'04"	Village of Surfside Public Ramp

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
A site number preceded by two asterisks indicates wet slips or dry storage at site counted on roves. Trailer Location codes 3, 4, and 5 may be used at site.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Matagorda	170	1		28°25'58"	96°25'59"	Froggie's Public Ramp
	170	2		28°26'21"	96°24'51"	Fishing Center Ramp
			(3)			(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
			(15)			(Palacios Bait Camp Ramp - Deleted 11/21/96)
	320	16		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
			(20)			(Al's Ramp - Deleted 5/15/03)
			(21)			(Gilmer's Ramp - Deleted 6/15/82)
	590	22		28°37'40"	95°58'13"	Rawlings Ramp
			(23)			(UFO Ramp - Deleted 5/15/84)
	160	24		28°46'20"	95°38'03"	Caney Creek Marina Ramp
	160	25		28°46'16"	95°37'05"	Bridge Cove Marina Ramp
			(26)			(Cherry's Ramp - Deleted 5/15/84)
			(27)			(Bulkhead Marina Lift - Deleted 5/15/80)
	160	28		28°45'28"	95°46'26"	Chinquapin Ramp
			(29)			(The Wharf Ramp - Deleted 5/15/94)
			(30)			(St. Marys Bayou Ramp - Deleted 11/21/05)
	220	31		28°41'39"	96°39'50"	Six Mile Public Ramp
			(32)			(Don Juan Marina Ramp - Deleted 5/15/97)
	320	**33		28°42'34"	96°12'36"	Brookings Boat Shed (34 wet slips)
			(34)			(Collegeport Ramp - Deleted 11/21/85)
	340	35		28°41'15"	96°16'27"	Jensen's Point Public Ramp
	60	**36		28°39'27"	96°24'58"	Port Alto Ramp & Boat Sheds (includes 107 wet slips in 2 sheds)
			(37)			(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 2011.

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

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

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

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
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
			(8)			(Herndon's Hideaway Ramp - Deleted 2/29/88)
			(9)			(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)			(North Conn Brown Harbor Ramp - Deleted 11/21/85)
	280	13		27°54'00"	97°08'09"	South Conn Brown Harbor Public Ramp
			(14)			(Fin & Feather Marina Ramp - Deactivated as crossover site 5/15/05)
	285	*15		27°52'52"	97°05'57"	South Bay Marina Ramp (includes wet slips and rent boats)
	280	**16		27°58'03"	97°05'21"	Palm Harbor Marina Docks (39 wet slips)
	280	*17		27°59'30"	97°04'21"	Cove Harbor North Public Ramp (includes wet slips)
			(18)			(Port Bay Ramp - Deleted 11/21/82)
			(19)			(Rockport Turning Basin Ramp - Deleted 11/21/94)
	285	*20		27°52'29"	97°05'35"	Crab Man Ramp (includes wet slips, rent kayaks, and party boat)
			(21)			(Pouzee's Ramp - Deleted 11/21/95)
	120	22		28°04'38"	97°13'15"	Bayside Public Ramp
			(23)			(Lonyo's Cajun Marina Ramp - Deleted 5/15/03)
	20	*24		28°04'23"	97°02'06"	Sand Dollar Ramp (includes wet slips)
			(25)			(Key Allegro Marina - Deleted 5/15/82)
			(26)			(Key Allegro North Ramp - Deleted 12/1/80)
			(27)			(Racquet Club Ramp - Deleted 5/15/82)
	284	28		27°53'22"	97°08'54"	Aransas Pass Airport Public Ramp
	96	*29		27°50'17"	97°04'00"	Port Aransas Public Ramp (includes wet slips)
			(30)			(Woody's Ramp - Deleted 11/21/98)
			(31)			(Harbor Oaks Ramp - Deleted 5/15/92)
			(32)			(Key Allegro Boat Shed B - Deleted 5/15/96)
			(33)			(Key Allegro Boat Shed A and T-Head - Deleted 5/15/96)
			(34)			(Sea Foam Motel Ramp - Deleted 2/29/88)
			(35)			(Harbor East Docks - Deactivated as crossover site 5/15/92)
			(36)			(Harbor West Docks - Deactivated as crossover site 5/15/92)
			(37)			(Woody's West Docks - Deactivated as crossover site 5/15/92)
			(38)			(Woody's East Docks - Deleted 11/21/92)
			(39)			(Sports Center South Dock - Deleted 11/21/92)
			(40)			(Sports Center North Dock - Deleted 11/21/92)
			(41)			(Keller's Marina Boat Ramp - Deleted 11/21/85)
	240	42		28°10'58"	97°13'06"	Mission River Public Ramp
			(43)			(Lindsay's Landing Ramp - Deleted 5/15/99)
			(44)			(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 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Aransas (Cont'd.)			(45)			(Stinky's Bait Camp Ramp - Deleted 5/15/04)
	284	46		27°53'20"	97°08'49"	Ransom Channel Park Public Ramp
			(47)			(Atteberry's Ramp - Deleted 11/21/06)
	280	48		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 dry storage barns)
	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)
		52				Boat trailers at non-designated launching sites

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
A site number preceded by two asterisks indicates wet slips or dry storage at site counted on roves. Trailer Location codes 3, 4, and 5 may be used at site.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Corpus Christi	260	*1		27°50'12"	97°22'54"	South Nueces Causeway Public Ramp (includes wet slips)
			(2)			(North Nueces Causeway Ramp - Deleted 10/27/80)
	130	3		27°50'11"	97°13'13"	Ingleside Cove Public Ramp
	130	**4		27°49'52"	97°13'25"	Bahia Marina Ramp (includes 46 wet slips)
			(5)			(Channel View Ramp - Deleted 5/15/86)
			(6)			(Warren's Ramp - Deleted 8/10/79)
	284	7		27°53'22"	97°08'54"	Aransas Pass Airport Public Ramp
	284	*8		27°53'18"	97°06'43"	Redfish Bay Marina Ramp (includes wet slips)
	130	9		27°44'12"	97°08'12"	Wilson's Cut Ramp
			(10)			(Oso Bridge Public Ramp - Deleted 11/21/96)
	130	11		27°47'29"	97°23'20"	L-Head Public Ramp
	96	*12		27°50'17"	97°04'00"	Port Aransas Public Ramp (includes wet slips)
			(13)			(Woody's Ramp - Deleted 11/21/98)
	284	14		27°53'20"	97°08'49"	Ransom Channel Park Public Ramp
			(15)			(Sun Oil Ramp - Deleted 11/21/92)
			(16)			(Billing's Public Ramp - Deactivated as crossover site 5/15/92)
			(17)			(Naval Ramp - Deactivated as crossover site 5/15/92)
			(18)			(South Bay Marina Ramp - Deactivated as crossover site 5/15/94)
			(19)			(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 12 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 (4 docks and 2 bulkheads with 115 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)
			(29)			(Woody's East Docks - Deleted 11/21/92)
			(30)			(Sports Center South Dock - Deleted 11/21/92)
			(31)			(Sports Center North Dock - Deleted 11/21/92)
	96	**32		27°50'23"	97°03'35"	Fisherman's Wharf Dock (4 party-boat wet slips)
	93	**33		27°50'20"	97°03'11"	University of Texas Boat Basin Docks (1 dock and bulkhead with 42 wet slips)
	130	**34		27°48'25"	97°05'10"	Island Moorings Marina Docks (285 wet slips)
	284	**35		27°53'22"	97°08'54"	Hampton's Landing Dock (1 dock and 1 bulkhead with 31 wet slips)
			(36)			(Marker 37 Ramp - Deactivated as crossover site 5/15/09)
	96	**37		27°50'21"	97°03'38"	Sportsplex Docks (2 docks with 58 wet slips; party boats)
	96	**38		27°50'20"	97°03'34"	Trout Street Yacht Basin Docks (2 docks and 1 bulkhead with 36 wet slips; party boats)
			(39)			(Lonyo's Cajun Marina Ramp - Deleted 5/15/03)
			(40)			(Crab Man Ramp - Deactivated as crossover site 5/15/05)

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

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

A site number preceded by one asterisk indicates wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
A site number preceded by two asterisks indicates wet slips or dry storage at site counted on roves. Trailer Location codes 3, 4, and 5 may be used at site.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Upper Laguna Madre	370	**1		27°36'43"	97°17'53"	Catchin' Connection Ramp (includes 91 wet slips)
	370	*2		27°37'01"	97°17'49"	Laguna Shores Resort & Marina Ramp (includes wet slips and rent boats)
			(3)			(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"	Clem's Marina Public Ramp (includes 3 wet slips)
	370	12		27°38'03"	97°14'11"	Billing's Public Ramp
	370	13		27°37'24"	97°13'31"	Padre Isle Investment Ramp I
			(14)			(Boat Hole Ramp - Deleted 5/15/99)
			(15)			(Naval Air Station Ramp - Deleted 11/21/10)
	80	16		27°19'11"	97°40'55"	Kaufer Park Public Ramp
			(17)			(Kratz's Ramp - Deleted 11/21/97)
	211	*18		27°16'40"	97°42'30"	Williamson's Ramp (includes wet slips)
	370	19		27°28'23"	97°18'35"	Bird Island Basin Ramp (Padre Island National Seashore)
			(20)			(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 wet slips or dry storage at site not counted on roves. Trailer Location codes 3, 4, and 5 not used at site.
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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2011.

Bay system	Minor bay	Site number In use	Site number Deleted	Latitude	Longitude	Site identification
Lower Laguna Madre			(1)			(Fisherman's Wharf Ramp - Deleted 11/21/07)
	230	**2		26°06'20"	97°10'13"	Jim's Pier Ramp (includes 30 wet slips; party boats)
	230	**3		26°04'37"	97°09'55"	Sea Ranch Marina Dock & Dry Storage Shed (includes 16 wet slips; party boats; 408-boat capacity dry storage shed)
			(4)			(Jetties Ramp - Deleted 5/15/80)
			(5)			(Marchan's Ramp - Deleted 9/1/78)
			(6)			(Port Isabel Ramp - Deleted 9/1/76)
	230	**7		26°04'27"	97°12'52"	White Sands Ramp (includes 16 wet slips)
	294	8		26°00'08"	97°17'54"	San Martin Public Ramp
	230	**9		26°06'11"	97°17'26"	Laguna Vista Ramp (includes 17 wet slips)
			(10)			(Gabby's on the Arroyo Ramp - Deleted 5/15/04)
			(11)			(Ready's Bait Stand Ramp - Deleted 5/15/10)
			(12)			(Al's Place Ramp - Deleted 3/27/82)
	230	13		26°33'10"	97°25'41"	Willacy County Navigation District Ramp
	282	14		26°33'24"	97°25'44"	Port Mansfield State Ramp
			(15)			(Redfish Motel Ramp - Deleted 5/15/84)
	230	**16		26°08'00"	97°10'34"	South Padre Marina Docks (72 wet slips)
	230	**17		26°33'06"	97°25'42"	Port Mansfield Boat Basin Docks (6 docks with 117 wet slips)
	230	**18		26°04'23"	97°12'42"	Port Isabel Channel East Side Docks (3 marinas with 45 wet slips; party boats)
	230	**19		26°04'32"	97°09'55"	Sea Ranch Marina South Docks (5 docks with 42 wet slips; party boats)
			(20)			(Bermuda's Ramp - Deleted 11/21/91)
	262	21		26°14'22"	97°35'07"	Rio Hondo Public Ramp
	230	22		26°04'34"	97°12'59"	Port Isabel City Ramp
	230	**23		26°04'25"	97°12'57"	The Traveler Trailer Park Ramp (includes 10 wet slips)
	230	**24		26°03'59"	97°12'37"	Southpoint Marina Ramp (includes dry storage shed)
			(25)			(Southpoint Marina Docks - Deleted 11/21/96)
	230	**26		26°04'35"	97°13'01"	Anchor Harbor Ramp (includes 22 wet slips)
	230	27		26°04'46"	97°10'09"	South Padre Island State Ramp
			(28)			(Arroyo City Resort Ramp - Deleted 11/21/93)
	230	29		26°07'45"	97°10'18"	Ted's Ramp
	262	30		26°20'59"	97°23'28"	Adolph Tomae County Park Ramp
	230	31		26°04'15"	97°12'45"	Park Center Ramp
	262	**32		26°19'54"	97°26'28"	Channel View RV Park Ramp (includes 30 wet slips)
			(33)			(Arroyo City RV Resort Ramp - Deleted 11/21/00)
			(34)			(Sea Ranch Marina Dry Storage Shed - Deleted 11/21/03)
	230	35		26°04'09"	97°09'47"	Isla Blanca County Park Ramp
		52				Boat trailers at non-designated launching sites

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CROSSOVER BOAT-ACCESS SITES
(High-Use 2011 thru Low-Use 2011-12)

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 (3-2011)

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; 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, universities, 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 and non-Activity-2 parties missed due to refusal to be interviewed or refusal to have landings examined)
99 = Missed interview (for non-commercial and non-Activity-2 parties missed due to time constraints, heavy rain, or language barrier)

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

Figure 10. County, State, and Country Codes

County Codes

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

Figure 10. County, State, and Country Codes

County Codes (Continued)

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

Figure 10. County, State, and Country Codes

State Codes

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

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, Slugos, Bass Worms, Gulp! baits in various shapes, etc.).
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 Mullets, 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 which are non-shrimp like (dead or alive). Does <u>not</u> include ghost shrimp.
22 = **Sea lice (mantis shrimp)**	Crustaceans of the Order Stomatopoda.

 Figure 12. Bait Codes (Continued)

Current Year (Continued)

33 = **Crabs and dead shrimp** See definitions for bait codes 0 and 11.

44 = **Sea lice and dead shrimp** See definitions for bait codes 0 and 22.

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 adjacent ramp (i.e., ramp is part of same access site as wet slip or boat house)

DATA ENCODING LISTS **Figure 14. Species Names and Codes**

NON-SPECIFIC SPECIES LIST (2011)
(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
1850		MIXEDSPECI (mixed species) - Resource
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		TSAMPSHP (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
3000		TARBALL (tar ball)
4200		BCULLVEGAL (total vegetation, etc. after subsample weight) - SS 80
4220		ACULLVEGAL (total vegetation, etc. weight) - SS 80
232		UFOOD (unclassified food) - MAPR
233		USCRAP (unclassified scrap) - MAPR
234		WHITING (kingfish: Menticirrhus sp.) - MAPR
235		UTUNA (unclassified tuna) - MAPR
9228		SHRIMPBP (shrimp, brown & pink) - MAPR
9229		SHRIMPO (shrimp, other) - MAPR
31249		Live bait shrimp - MAPR
31250		Dead bait shrimp - MAPR
31251		Shark fins - MAPR
*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
*2000		*ECON (post-trip economics) - Creel
*2001		*SOCIO (post-trip sociology) - Creel
*2002		*PRESOCIO or *PRETRIP (pre-trip sociology) - Creel

* = Discontinued; do not use.

Species, NUMERIC.NON-SPECIFIC, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
311		Cubbyu	Pareques umbrosus
115	15	Cubera snapper	Lutjanus cyanopterus
770		Darter goby	Ctenogobius boleosoma
957		Deepbody boarfish	Antigonia capros
511	04	Deepwater dab	Poecilopsetta beanii
289		Diamond-backed terrapin	Malaclemys terrapin
742		Diamond killifish	Adinia xenica
548		Doctorfish	Acanthurus chirurgus
726		Dog snapper	Lutjanus jocu
597		Dolphinfish	Coryphaena hippurus
258		Dotterel filefish	Aluterus heudelotii
860		Duckbill flathead	Bembrops anatirostris
734		Dusky anchovy	Anchoa lyolepis
NOTE: Database includes records for synonym of above species (*292, *Longnose anchovy, *Anchoa nasuta).			
568		Dusky damselfish	Stegastes adustus
513		Dusky flounder	Syacium papillosum
747		Dusky pipefish	Syngnathus floridae
890		Dusky shark	Carcharhinus obscurus
822		Dwarf goatfish	Upeneus parvus
125	04	Dwarf herring	Jenkinsia lamprotaenia
812		Dwarf sand perch	Diplectrum bivittatum
746		Dwarf seahorse	Hippocampus zosterae
288	17	Eared grebe	Podiceps nigricollis
121	29	Eastern cottontail	Sylvilagus floridanus
033		Eastern river cooter	Pseudemys concinna concinna
765		Emerald sleeper	Erotelis smaragdus
028		Escolar	Lepidocybium flavobrunneum
741		False silverstripe halfbeak	Hyporhamphus meeki
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, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(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
375		Family lefteye flounders	Family Bothidae
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

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
408		Family mojarras	Family Gerreidae
365		Family molas	Family Molidae
456		Family mooneyes	Family Hiodontidae
462		Family morays	Family Muraenidae
397		Family mullets	Family Mugilidae
435		Family needlefishes	Family Belonidae
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
484		Family sand tigers	Family Odontaspididae
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 Ephippidae
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, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(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	Dormitator maculatus
761		Feather blenny	Hypsoblennius hentz
068		Feral hog	Sus scrofa
658		Finescale menhaden	Brevoortia gunteri
784		Finetooth shark	Carcharhinus isodon
036		Flagfin mojarra	Eucinostomus melanopterus
986		Flamefish	Apogon maculatus
949		Flat needlefish	Ablennes hians
739		Flathead catfish	Pylodictis olivaris
753		Florida pompano	Trachinotus carolinus
855		Florida smoothhound	Mustelus norrisi
157		(Flounder - unidentified)	Genus Paralichthys
521		Flying gurnard	Dactylopterus volitans
939		Flying halfbeak	Euleptorhamphus velox
762		Freckled blenny	Hypsoblennius ionthas
205	15	Freckled cardinalfish	Phaeoptyx conklini
798		Freckled pikeconger	Hoplunnis macrura
556		Freckled stargazer	Gnathagnus egregius
573		French angelfish	Pomacanthus paru
757		Freshwater drum	Aplodinotus grunniens
550		Freshwater goby	Ctenogobius shufeldti
546		Frigate mackerel	Auxis thazard
767		Frillfin goby	Bathygobius soporator
004		Fringed filefish	Monacanthus ciliatus
779		Fringed flounder	Etropus crossotus
012	15	Fringed pipefish	Anarchopterus criniger
781		Fringed sole	Gymnachirus texae
262		Fulvous whistling-duck	Dendrocygna bicolor
272	14	Gadwall	Anas strepera
611		Gafftopsail catfish	Bagre marinus
976		Gag	Mycteroperca microlepis
606		Gizzard shad	Dorosoma cepedianum
015		Glasseye snapper	Priacanthus cruentatus
557		Goby flathead	Bembrops gobioides
165		Gold brotula	Gunterichthys longipenis
046	24	Golden shiner	Notemigonus crysoleucas
674		Golden topminnow	Fundulus chrysotus
721		Goldeye	Hiodon alosoides
100		Goldfish	Carassius auratus
965		Goliath grouper	Epinephelus itajara

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
657		Silver seatrout	Cynoscion nothus
924		Singlespot frogfish	Antennarius radiosus
688		Skilletfish	Gobiesox strumosus
717		Skipjack herring	Alosa chrysochloris
543		Skipjack tuna	Katsuwonus pelamis
528		Slender searobin	Peristedion gracile
564		Slippery dick	Halichoeres bivittatus
893		Smalleye hammerhead	Sphyrna tudes
065		Smallmouth bass	Micropterus dolomieu
631		Smallmouth buffalo	Ictiobus bubalus
141		Smallscale fat snook	Centropomus parallelus
061	15	Smallscale lizardfish	Saurida caribbaea
788		Smalltail shark	Carcharhinus porosus
895		Smalltooth sawfish	Pristis pectinata
946		Smallwing flyingfish	Oxyporhamphus micropterus
901		Smooth butterfly ray	Gymnura micrura
892		Smooth dogfish	Mustelus canis
782		Smooth puffer	Lagocephalus laevigatus
131		Smooth softshell (turtle)	Apalone mutica
021	48	Smooth trunkfish	Lactophrys triqueter
854		Smoothhead scorpionfish	Scorpaena calcarata
111	15	Snake mackerel	Gempylus serpens
915		Snakefish	Trachinocephalus myops
912		Snapper eel	Echiophis punctifer
225		Snow goose	Chen caerulescens
256		Snowy grouper	Epinephelus niveatus
872		Sooty eel	Bascanichthys bascanium
616		Southern flounder	Paralichthys lethostigma
809		Southern hake	Urophycis floridana
758		Southern kingfish	Menticirrhus americanus
063		Southern leopard frog	Rana sphenocephala
101	54	Southern sailfin catfish	Pterygoplichthys anisitsi
696		Southern stargazer	Astroscopus y-graecum
635		Southern stingray	Dasyatis americana
969		Spanish flag	Gonioplectrus hispanus
589		Spanish grunt	Haemulon macrostomum
681		Spanish mackerel	Scomberomorus maculatus
802		Spanish sardine	Sardinella aurita
964		Speckled hind	Epinephelus drummondhayi
664		Speckled worm eel	Myrophis punctatus
793		Spinner shark	Carcharhinus brevipinna
864		Spiny flounder	Engyophrys senta
031		Spinycheek scorpionfish	Neomerinthe hemingwayi
608		Spot	Leiostomus xanthurus
577		Spotfin butterflyfish	Chaetodon ocellatus
551		Spotfin dragonet	Foetorepus agassizi
518		Spotfin flounder	Cyclopsetta fimbriata
942		Spotfin flyingfish	Cheilopogon furcatus
075	15	Spotfin hogfish	Bodianus pulchellus

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
874		Spotfin mojarra	Eucinostomus argenteus
706		Spottail goby	Ctenogobius stigmaturus
581		Spottail pinfish	Diplodus holbrookii
137	04	Spottail tonguefish	Symphurus urospilus
197	04	Spotted batfish	Ogcocephalus pantostictus
727		Spotted eagle ray	Aetobatus narinari
728		Spotted gar	Lepisosteus oculatus
810		Spotted hake	Urophycis regia
663		Spotted moray	Gymnothorax moringa
799		Spotted pike-conger	Hoplunnis tenuis
852		Spotted scorpionfish	Scorpaena plumieri
614		Spotted seatrout	Cynoscion nebulosus
716		Spotted snake eel	Ophichthus ophis
910		Spotted spoon-nose eel	Echiophis intertinctus
013		Spotted sunfish	Lepomis punctatus
519		Spotted whiff	Citharichthys macrops
510		Spottedfin tonguefish	Symphurus diomedeanus
861		Spreadfin skate	Dipturus olseni
954		Squirrelfish	Holocentrus adscensionis
620		Star drum	Stellifer lanceolatus
740		Stippled clingfish	Gobiesox punctulatus
925		Striated frogfish	Antennarius striatus
733		Striped anchovy	Anchoa hepsetus
751		Striped bass	Morone saxatilis
651		Striped blenny	Chasmodes bosquianus
687		Striped burrfish	Chilomycterus schoepfii
936		Striped cusk-eel	Ophidion marginatum
587		Striped grunt	Haemulon striatum
612		Striped mullet	Mugil cephalus
934	01	Stripefin brotula	Neobythites marginatus
570		Sunshinefish	Chromis insolata
538		Swordfish	Xiphias gladius
558		Swordtail jawfish	Lonchopisthus micrognathus
730		Tarpon	Megalops atlanticus
982		Tattler	Serranus phoebe
064		Texas silverside	Menidia clarkhubbsi
711		Threadfin shad	Dorosoma petenense
908		Threadtail conger	Uroconger syringinus
778		Three-eye flounder	Ancylopsetta dilecta
881		Thresher shark	Alopias vulpinus
212		Tidewater silverside	Menidia peninsulae
891		Tiger shark	Galeocerdo cuvier
361		(Tilapia - unidentified)	Genus Tilapia
991		Tilefish	Lopholatilus chamaeleonticeps
666		Timucu	Strongylura timucu
590		Tomtate	Haemulon aurolineatum
928		Tricorn batfish	Zalieutes mcgintyi
351		Twospot flounder	Bothus robinsi
110	15	Unicorn filefish	Aluterus monoceros

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
594		Vermilion snapper	Rhomboplites aurorubens
769		Violet goby	Gobioides broussoneti
547		Wahoo	Acanthocybium solandri
720		Warmouth	Lepomis gulosus
967		Warsaw grouper	Epinephelus nigritus
819		Wenchman	Pristipomoides aquilonaris
978		Western comb grouper	Mycteroperca acutirostris
073		Western diamond-backed rattlesnake	Crotalus atrox
744		Western mosquitofish	Gambusia affinis
879		Whale shark	Rhincodon typus
842		Whalesucker	Remora australis
844		Whip eel	Bascanichthys scuticaris
906		Whiptail conger	Rhynchoconger gracilior
749		White bass	Morone chrysops
336		White crappie	Pomoxis annularis
026	15	White grunt	Haemulon plumierii
535		White marlin	Tetrapturus albidus
760		White mullet	Mugil curema
624		White perch	Morone americana
882		White shark	Carcharodon carcharias
224		White-tailed deer	Odocoileus virginianus
090	17	White-winged dove	Zenaida asiatica
583		Whitebone porgy	Calamus leucosteus
109	60, 15	Whitefin sharksucker	Echeneis neucratoides
143	15	Whitespotted soapfish	Rypticus maculatus
514		Windowpane	Scophthalmus aquosus
263	14	Wood duck	Aix sponsa
022	15	Wrasse bass	Liopropoma eukrines
750		Yellow bass	Morone mississippiensis
737		Yellow bullhead	Ameiurus natalis
789		Yellow chub	Kyphosus incisor
905		Yellow conger	Rhynchoconger flavus
785		Yellow jack	Caranx bartholomaei
902		Yellow stingray	Urobatis jamaicensis
364		Yellowedge grouper	Epinephelus flavolimbatus
237		Yellowfin grouper	Mycteroperca venenosa
593		Yellowfin mojarra	Gerres cinereus
240	15	Yellowfin tuna	Thunnus albacares
975		Yellowmouth grouper	Mycteroperca interstitialis
595		Yellowtail snapper	Ocyurus chrysurus
*953	01	*Armorhead	*Hoplostethus mediterraneus
*930	01	*(Barbelless codlet)	*Gadella maraldi
*884	01	*Black cat shark	*Apristurus indicus
*516	01	*(Close-eyed flounder)	*Paralicthys triocellatus
*987	01	*(Cycloid-scale cardinalfish)	*Epigonus pandionisus
*529	01	*(Deep-line scorpionfish)	*Setarches guentheri

Species, COMMON.VERTEBRATE, 5/5/2011

VERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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)	*Antennarius nuttingi
*921	01	*(Intermediate lanternfish)	*Diaphus intermedius
*292	15	*Longnose anchovy (Synonym of Dusky anchovy)	*Anchoa nasuta (Synonym of A. lyolepis)
*526	01	*(Longpath searobin)	*Peristedion longispathum
*920	01	*(Low-spot lanternfish)	*Diaphus dumerili
*917	01	*(Medium-nose greeneye)	*Chlorophthalmus chalybeius
*931	01	*(Notched-fin codfish)	*Merluccius magnoculus
*933	01	*(Paired-fin brotula)	*Dicrolene intronigra
*527		*Prickly armored searobin	*Peristedion greyi
*911		*Snapper eel	*Echiophis mordax (Synonym of E. punctifer)
*870		*(Turtle-unidentified)	*Order Testudinata
*973		*Yellowtail hamlet	*Hypoplectrus chlorurus

* = Discontinued; do not use.

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

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

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9202	05	Cancellate cantharus	Cantharus cancellarius
9353		Cannonball jelly or cabbagehead	Stomolophus meleagris
9154	22	Caribbean spiny lobster	Panulirus argus
9066		Carolina marshclam	Polymesoda caroliniana
9137	05	Cayenne keyhole limpet	Diodora cayenensis
9122	22	Cinnamon river shrimp	Macrobrachium acanthurus
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	Upogebia affinis
9102	11	(Colonial hydroid - unidentified)	Genus Bougainvillia
9123	05	Common Atlantic slippersnail	Crepidula fornicata
9200	44	(Common bugula)	Bugula neritina
9120	05	Common jingle	Anomia simplex
9603		(Common mantis shrimp)	Squilla empusa
9315		Common nutmeg	Cancellaria reticulata
9323	05	Common octopus	Octopus vulgaris
9295	05	Common sundial	Architectonica nobilis
9184	05	Concentric nutclam	Nuculana concentrica
9201	05	Convex slippersnail	Crepidula convexa
9192		Crested oyster	Ostrea equestris
9241	05	Cross-barred venus	Chione cancellata
9325	06	Cryptic teardrop crab	Pelia mutica
9078	05	Cut-ribbed ark	Anadara floridana
9193		Daggerblade grass shrimp	Palaemonetes pugio
9050	19	(Damselfly nymphs)	Suborder Zygoptera
9152	39	(Dark-banded mantis shrimp)	Bigelowina biminiensis
9115	05	Dark falsemussel	Mytilopsis leucophaeata
9013		Delicate ark	Barbatia tenera
9032	08	Delicate swimming crab	Portunus anceps
9040		Diffuse ivory bush coral	Oculina diffusa
9082	06	Dimpled hermit	Pagurus impressus
9176	05	Disk dosinia	Dosinia discus
9004	25	(Dovesnail - unidentified)	Genus Costoanachis
9125	37	(Dragonfly nymphs)	Suborder Anisoptera
9210	05	Dwarf surf clam	Mulinia lateralis
9020	05	Eastern auger	Terebra dislocata
9037	05	Eastern melampus	Melampus bidentatus
9300	05	Eastern oyster	Crassostrea virginica
9141	06	Eastern tube crab	Polyonyx gibbesi
9044	05	Eastern white slippersnail	Crepidula plana

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9107		Elongate macoma	Macoma tenta
9174	06	Estuarine ghost shrimp	Lepidophthalmus louisianensis
9334	06	Estuarine mud crab	Rhithropanopeus harrisii
9638		Estuarine snapping shrimp	Alpheus estuariensis
9345		Eyespot rock shrimp	Sicyonia stimpsoni
9282	06	False arrow crab	Metoporhaphis calcarata
9247	63	(False shark eye)	Neverita delessertiana
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
9033	08	Family longeye shrimps	Family Ogyrididae
9069	06	(Family majid crabs)	Family Majidae
9205	45	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
9302		Family rubble and pebble crabs	Family Xanthidae
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	Terebra protexta
9354		(Five-holed sand dollar)	Mellita quinquiesperforata
9490		Flame box crab	Calappa flammea
9036		Flamingo tongue	Cyphoma gibbosum
9214	08	Flatback mud crab	Eurypanopeus depressus
9329		Flatclaw hermit	Pagurus pollicaris
9297		Flecked box crab	Hepatus pudibundus
9173	05	Florida fighting conch	Strombus alatus
9198	43	Florida grass shrimp	Palaemon floridanus
9839	27	Florida lady crab	Ovalipes floridanus
9328	05	Florida rocksnail	Stramonita haemastoma floridana
9151	05	Florida spiny jewelbox	Arcinella cornuta
9226	47	(Four-tentacle box jelly)	Tamoya haplonema
9254		Fragile surfclam	Mactrotoma fragilis
9239	42	Furcate spider crab	Stenocionops furcatus
9157		Furrowed frog crab	Raninoides loevis
9049	25	(Ghost shrimp)	Glypturus acanthochirus
9238	05	Giant eastern murex	Hexaplex fulvescens
9262	08	Giant hermit	Petrochirus diogenes
9136	13	(Giant mantis shrimp)	Lysiosquilla scabricauda
9181	05	Giant tun	Tonna galea

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9131	37	(Giant waterbug - unidentified)	Genus Belostoma
9194		Granulate shellback crab	Hypoconcha arcuata
9062	08	Granulose purse crab	Acanthilia intermedia
9609		(Grass shrimp - unidentified)	Genus Palaemonetes
9086	05	Greedy dovesnail	Costoanachis avara
9310	06	Green porcelain crab	Petrolisthes armatus
9073	05	Gulf dovesnail	Costoanachis semiplicata
9348		Gulf frog crab	Raninoides louisianensis
9876		Gulf grassflat crab	Dyspanopeus texanus
9142	27	Gulf sand fiddler	Uca panacea
9209	22	Gulf squareback crab	Speocarcinus lobatus
9636		Gulf stone crab	Menippe adina
9148		Hairy sponge crab	Cryptodromiopsis antillensis
9220	05	(Hays' rock shell)	Stramonita haemastoma canaliculata
9352		(Heart urchin)	Brissopsis alta
9252		Hooked mussel	Ischadium recurvum
9076	05	Horse conch	Pleuroploca gigantea
9360		Humpback shrimp	Solenocera vioscai
9249		(Hydromedusa)	Nemopsis bachei
9145	05	Incongruous ark	Anadara brasiliana
9128	05	Intermediate cyphoma	Pseudocyphoma intermedium
9830		Iridescent swimming crab	Portunus gibbesii
9162	08	Kinglet rock shrimp	Sicyonia typica
9177	06	Knobbed mud crab	Hexapanopeus paulensis
9126	05	Lady-in-waiting venus	Puberella intapurpurea
9836	03	Lesser blue crab	Callinectes similis
9851		(Lesser mantis shrimp)	Gibbesia neglecta
9832		Lesser rock shrimp	Sicyonia dorsalis
9294	10	Lettered olive	Oliva sayana
9327	05	Lightning whelk	Busycon sinistrum
9236	53	Lion's mane	Cyanea capillata
9133	08	Lobate mud crab	Eurypanopeus abbreviatus
9833		Longfin inshore squid	Loligo pealeii
9039	08	Longfinger neck crab	Podochela riisei
9313	06	Longnose spider crab	Libinia dubia
9358		Longspine swimming crab	Portunus spinicarpus
9643	08	Longwrist hermit	Pagurus longicarpus
9337	08	(Luciferid shrimp)	Lucifer faxoni
9113		(Many-ribbed papillaed jellyfish)	Rhacostoma atlanticum
9242	53	(Many-ribbed non-papillaed jellyfish)	Aequorea forskalea
9101	22	Marsh grass shrimp	Palaemonetes vulgaris
9155	05	Marsh periwinkle	Littoraria irrorata
9022	05	Matagorda macoma	Macoma mitchelli
9041		(Mayfly nymphs)	Genus Isonychia
9003		Mexilhao mussel	Perna perna
9043	05	Miniature moonsnail	Tectonatica pusilla
9188		Minor jacknife	Ensis minor
9083	05	(Mitchell's wentletrap)	Amaea mitchelli
9088	06	(Mole crab)	Lepidopa benedicti

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9318	09	Moon jelly	Aurelia aurita
9317		(Moonsnail - unidentified)	Genus Neverita
9084	05	Mossy ark	Arca imbricata
9837	27	Mottled purse crab	Persephona mediterranea
9243	09	Mottled seahare	Aplysia brasiliana
9063		(Mud-burrowing heart urchin)	Moira atropos
9156	06	Mudflat fiddler	Uca rapax
9235	11	Mushroom jellyfish	Rhopilema verrilli
9104	08	(Night shrimp)	Processa hemphilli
9052	08	Ocellated box crab	Calappa ocellata
9284	13	(Offshore mantis shrimp)	Squilla chydaea
9607		Ohio shrimp	Macrobrachium ohione
9019		Olive nerite	Neritina usnea
9180	06	Olivepit porcelain crab	Euceramus praelongus
9098	11	(Onion anemone)	Paranthus rapiformis
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 and sea slugs)	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	Panopeus simpsoni
9067	30	Pacific white shrimp	Litopenaeus vannamei
9346		Paper scallop	Amusium papyraceum
9169	09	Parchment tube worm	Chaetopterus variopedatus
9253	64	Pearwhelk	Busycotypus spiratus
9303		(Pearwhelk - unidentified)	Genus Busycotypus
9248		Peppermint shrimp	Lysmata wurdemanni
9319	09	(Phosphorus jelly)	Mnemiopsis mccradyi
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	Persephona crinita
9640		Pink shrimp	Farfantepenaeus duorarum
9233	49	(Pipe cleaner sea pen)	Virgularia presbytes
9034		Plicate hornsnail	Cerithidea pliculosa
9005	25	Pointed venus	Anomalocardia auberiana
9171	05	Ponderous ark	Noetia ponderosa
9698		Portly spider crab	Libinia emarginata
9124	26	Portuguese man o' war	Physalia physalis
9140	06	Puerto Rican sand crab	Emerita portoricensis
9165	41	(Purple jellyfish)	Pelagia noctiluca
9057	06	Purple marsh crab	Sesarma reticulatum

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9321	09	(Purple-spined sea urchin)	Arbacia punctulata
9018		Radial-ridged corbula	Corbula swiftiana
9153	05	Ragged seahare	Bursatella leachii pleii
9199	06	Red-joint fiddler	Uca minax
9160		Red swamp crawfish	Procambarus clarkii
9099	08	Redleg humpback shrimp	Exhippolysmata oplophoroides
9834		(Rimapenaeid shrimp - unidentified)	Genus Rimapenaeus
9024	08	(River shrimp - unidentified)	Genus Macrobrachium
9029		(Rock-boring urchin)	Echinometra lucunter
9260	22	Rose shrimp	Parapenaeus politus
9093	07	(Rosette-scaled brittle star)	Ophiolepis elegans
9146	08	Rough shellback crab	Hypoconcha parasitica
9707		Roughback shrimp	Rimapenaeus similis
9223		Roughneck shrimp	Rimapenaeus constrictus
9175	06	Roughwrist soft crab	Chasmocarcinus mississippiensis
9231		Royal red shrimp	Pleoticus robustus
9163		Royal sea star	Astropecten articulatus
9224		Sand snapping shrimp	Alpheus floridanus
9097	06	(Sargassum crab)	Callinectes marginatus
9182	11	Sargassum nudibranch	Scyllaea pelagica
9127	22	Sargassum shrimp	Latreutes parvulus
9227		Sargassum swimming crab	Portunus sayi
9068		(Sauerkraut bryozoan)	Zoobotryon verticillatum
9207	08	Sawtooth elbow crab	Platylambrus serratus
9320	05	Sawtooth penshell	Atrina serrata
9191		Scorched mussel	Brachidontes exustus
9309		Scotch bonnet	Phalium granulatum
9087	09	(Sea cucumber)	Allothyone mexicana
9197	11	(Sea cucumber - unidentified)	Genus Leptosynapta
9312	07	Sea nettle	Chrysaora quinquecirrha
9356		(Sea pansy)	Renilla muelleri
9108		Sea scallop	Placopecten magellanicus
9000	11	(Sea slug)	Pleurobranchaea tarda
9008		(Sea slug)	Polycera hummi
9234	51, 52	(Sea squirt)	Ciona intestinalis
9055	09	(Sea squirt)	Molgula manhattensis
9237	18, 55	(Sea star - unidentified)	Genus Echinaster
9343		(Sea walnut)	Beroe ovata
9215	09	(Sea wasp)	Chiropsalmus quadrumanus
9077	05	Sea-whip simnia	Simnialena marferula
9709		Seabob	Xiphopenaeus kroyeri
9089	05	(Seahare - unidentified)	Genus Aplysia
9244	08	(Sergestid shrimp)	Acetes americanus
9250	63	Shark eye	Neverita duplicata
9212	05	Sharp nassa	Nassarius acutus
9195		(Short-fingered hermit)	Pagurus brevidactylus
9002		Short macoma	Macoma brevifrons
9219		(Short-spined sea urchin)	Lytechinus variegatus
9166	06	Shortfinger neck crab	Podochela sidneyi

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9246	64	Shouldered pearwhelk	Busycotypus plagosus
9143	05	Silky tegula	Tegula fasciata
9240	57	(Skeleton shrimp - unidentified)	Family Caprellidae
9072		Slender inshore squid	Loligo pleii
9071		Slender sargassum shrimp	Latreutes fucorum
9023	08	Smooth duckclam	Anatina anatina
9091	06	Smooth elbow crab	Heterocrypta granulata
9222		Smooth mud crab	Hexapanopeus angustifrons
9021		Smooth scallop	Amusium pleuronectes
9106		Southern clamworm	Nereis succinea
9080	05	Southern marshclam	Polymesoda maritima
9293	05	Southern quahog	Mercenaria campechiensis
9245	05	Southern ribbed-mussel	Geukensia granosissima
9349		Speckled snapping shrimp	Synalpheus fritzmuelleri
9840		Speckled swimming crab	Arenaeus cribrarius
9016	25	Spined fiddler	Uca spinicarpa
9074		(Spiny-back scud)	Gammarus mucronatus
9105	11	(Spiny snail fur)	Podocoryne carnea
9116		(Spiral bryozoan)	Amathia alternata
9305	06	Spotted porcelain crab	Porcellana sayana
9047	26	Squatter pea crab	Tumidotheres maculatus
9344		Stilt spider crab	Anasimus latus
9048		(Stonefly nymphs)	Genus Claassenia
9186	05	Stout tagelus	Tagelus plebeius
9218	05	Striate bubble	Bulla striata
9012		Striped false limpet	Siphonaria pectinata
9058		Striped porcelain crab	Porcellana sigsbeiana
9307	07	(Striped sea star)	Luidia clathrata
9010		Striped snapping shrimp	Alpheus formosus
9848		Suborder crabs and lobsters	Suborder Reptantia
9138	26	Surf hermit	Isocheles wurdemanni
9251		Surf mole crab	Albunea gibbesii
9332	06	(Swimming crab)	Portunus ventralis
9190		Tampa tellin	Tellina tampaensis
9149		Texas quahog	Mercenaria campechiensis texana
9150	05	Texas venus	Agriopoma texasianum
9129	05	Thick lucine	Lucina pectinata
9170	05	Thick-ringed venus	Lirophora clenchi
9144	05	Thin cyclinella	Cyclinella tenuis
9330	06	Thinstripe hermit	Clibanarius vittatus
9011	05	Tinted cantharus	Pollia tincta
9161	05	Transverse ark	Anadara transversa
9117		(Tricolor anemone)	Calliactis tricolor
9355		(Two-spined starfish)	Astropecten duplicatus
9030		Variable cerith	Cerithium lutosum
9135	05	Variable coquina	Donax variabilis
9147		Virgin nerite	Neritina virginea
9001	05	(Vitrinella)	Solariorbis blakei
9132	37	(Water scorpion - unidentified)	Genus Ranatra

Species, COMMON.INVERTEBRATE, 5/5/2011

INVERTEBRATE SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9316	05	White baby ear	Sinum perspectivum
9081	05	White-beard ark	Barbatia candida
9340		White elbow crab	Leiolambrus nitidus
9600		White shrimp	Litopenaeus setiferus
9489		Yellow box crab	Calappa sulcata
9017		Yellow cone	Conus stimpsoni
9172	05	Yellow eggcockle	Laevicardium mortoni
9286	05	Yellow pricklycockle	Trachycardium muricatum
9322	06	Yellowline arrow crab	Stenorhynchus seticornis
9065	22	Zostera shrimp	Hippolyte zostericola
*9695	03	*Dana swimming crab	*Callinectes danae
*9189		*Phylum ribbon worms	*Phylum Rhynchocoela (Synonym of Phylum Nemertinea)
*9347		*(Portunid crab - unidentified)	*Genus Portunus
*9639		*(Squid)	*Loligo brevis

* = Discontinued; do not use.

VEGETATION SPECIES LIST (2011)
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
4034	20	(Alga - brown)	Cladosiphon occidentalis
4019	20	(Alga - brown)	Dictyota dichotoma
4036	20	(Alga - brown)	Padina vickersiae
4027	20	(Algae - brown)	Family Ectocarpaceae
4056		(Alga - green)	Caulerpa mexicana
4057		(Alga - green)	Caulerpa prolifera
4054	20	(Alga - green)	Enteromorpha linqulata
4030	20	(Alga - red)	Centroceras clavulatum
4033	20	(Alga - red)	Digenia simplex
4059		(Alga - red)	Jania capillacea
4029	20	(Alga - red)	Laurencia poitei
4020	20	(Algae - red)	Family Gracilariaceae
4005		Algae - unidentified	ALGAE
4055	16	Alligatorweed	Alternanthera philoxeroides
4058	16	American wild celery	Vallisneria americana
4041		Annual glasswort	Salicornia bigelovii
4032		Black mangrove	Avicennia germinans
4017	20	(Broad-leaf sargassum)	Sargassum fluitans
4068	20	(Broad-thallus sea lettuce)	Ulva lactuca
4046	32	Bushy sea-ox-eye	Borrichia frutescens
4039		Carolina fanwort	Cabomba caroliniana
4060	16	Coast sea purslane	Sesuvium maritimum
4048	32	Coastal saltgrass	Distichlis spicata
4028		Common duckweed	Lemna minor
4067		Common hornwort (coontail)	Ceratophyllum demersum
4024	16	Common reed	Phragmites australis
4021	16	Common water hyacinth	Eichhornia crassipes
4015	16	(Cordgrass - unidentified)	Genus Spartina
4044	32	Creeping glasswort	Salicornia virginica
4061	16	Delta arrowhead	Sagittaria platyphylla
4043	16	Duck-lettuce	Ottelia alismoides
4004		Emergent vegetation	VEGEMERGEN
4035	16	Eurasian water milfoil	Myriophyllum spicatum
4040	16	Fennel-leaf pondweed	Potamogeton pectinatus
4031		Giant cane	Arundinaria gigantea
4066		Giant salvinia	Salvinia molesta
4062	33	Grassleaf mudplantian	Heteranthera dubia
4064		(Green fleece)	Codium isthmocladum
4022	16	(Hornwort or coontail - unidentified)	Genus Ceratophyllum
4012	20	Manatee grass	Cymodocea filiformis
4045	32	Maritime saltwort	Batis maritima
4049	32	Marshhay cordgrass	Spartina patens
4023	20	Mermaid's wine cup	Acetabularia crenulata
4018	20	(Narrow-leaf sargassum)	Sargassum natans
4037	20	(Narrow-thallus sea lettuce)	Ulva fasciata
4000		No vegetation	VEGNONE
4042		Saltmarsh bulrush	Scirpus robustus
4016	20	(Sargassum - unidentified)	Genus Sargassum
4069	20	(Sea lettuce - unidentified)	Genus Ulva

Species, COMMON.VEGETATION, 5/5/2011

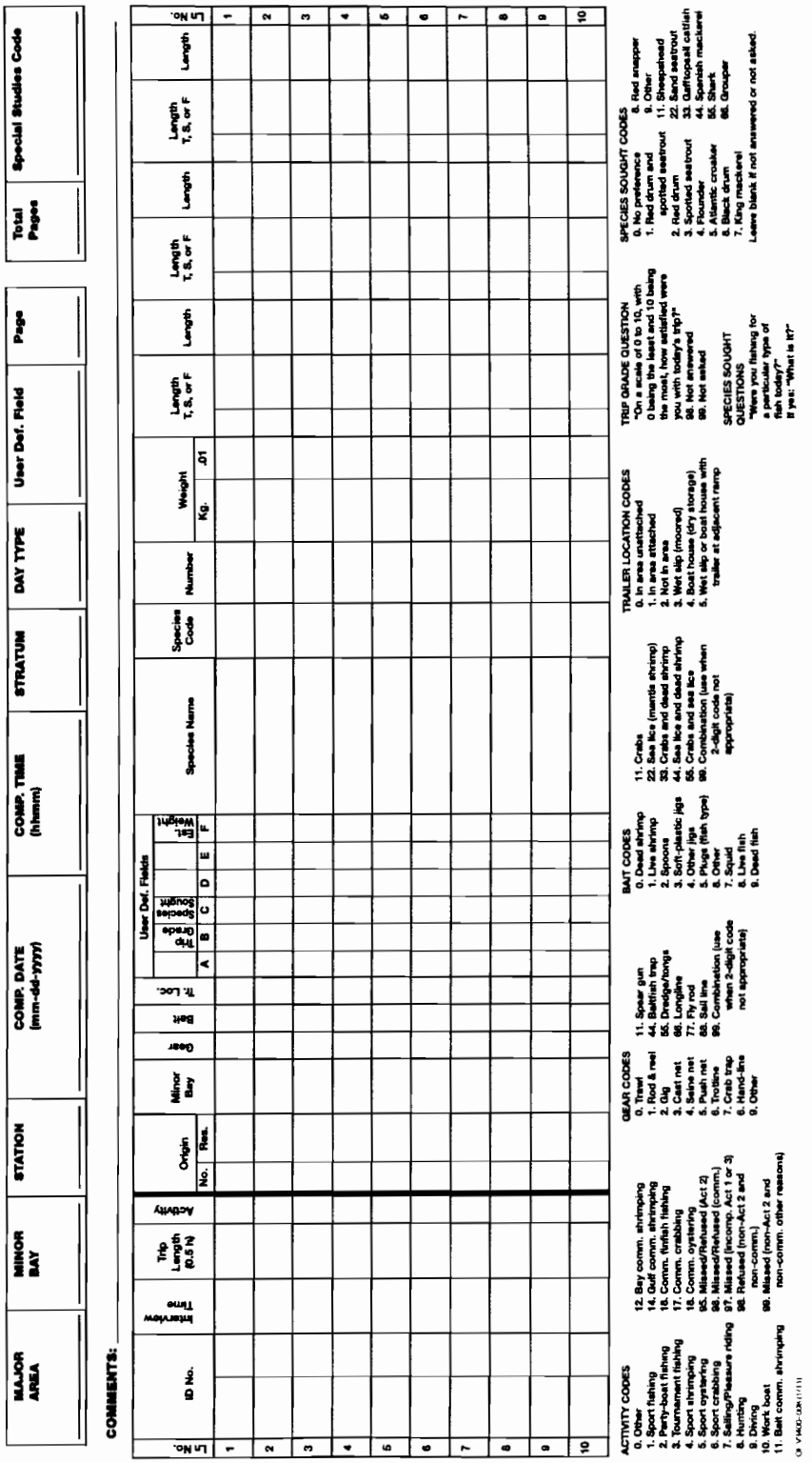
VEGETATION SPECIES LIST (2011)
(Common Name Order)

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

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 (hhmm)	STRATUM	DAY TYPE	User Def. Field	Page	Total Pages	Special Studies Code

COMMENTS:

Ln No.	ID No.	Interview Time	Trip Length (0.5 h)	Activity	Origin No.	Origin Res.	Minor Bay	Gear	Bait	Tr. Loc.	User Def. Fields A	B	C	D	E	F	Species Name	Species Code	Number	Weight Kg.	Weight .01	Length T, S, or F	Length	Length T, S, or F	Length	Length T, S, or F	Length	Ln No.
1																											1
2																											2
3																											3
4																											4
5																											5
6																											6
7																											7
8																											8
9																											9
10																											10

ACTIVITY CODES
0. Other
1. Sport fishing
2. Party-boat fishing
3. Tournament fishing
4. Sport shrimping
5. Sport oystering
6. Sport crabbing
7. Sailing/Pleasure riding
8. Hunting
9. Diving
10. Work boat
11. Bait comm. shrimping
12. Bay comm. shrimping
14. Gulf comm. shrimping
16. Comm. finfish fishing
17. Comm. crabbing
18. Comm. oystering
95. Missed/Refused (Act 2)
96. Missed/Refused (comm.)
97. Missed (incomp. Act 1 or 3)
98. Refused (non-Act 2 and non-comm.)
99. Missed (non-Act 2 and non-comm. other reasons)

GEAR CODES
0. Trawl
1. Rod & reel
2. Gig
3. Cast net
4. Seine net
5. Push net
6. Trotline
7. Crab trap
8. Hand-line
9. Other
11. Spear gun
44. Bellfish trap
55. Dredge/tongs
66. Longline
77. Fly rod
88. Sail line
99. Combination (use when 2-digit code not appropriate)

BAIT CODES
0. Dead shrimp
1. Live shrimp
2. Spoons
3. Soft-plastic jigs
4. Other jigs
5. Plugs (fish type)
6. Other
7. Squid
8. Live fish
9. Dead fish
11. Crabs
22. Sea lice (mantis shrimp)
33. Crabs and dead shrimp
44. Sea lice and dead shrimp
55. Crabs and sea lice
99. Combination (use when 2-digit code not appropriate)

TRAILER LOCATION CODES
0. In area unattached
1. In area attached
2. Not in area
3. Wet slip (moored)
4. Boat house (dry storage)
5. Wet slip or boat house with trailer at adjacent ramp

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 today's trip?"
98. Not answered
99. Not asked

SPECIES SOUGHT QUESTIONS
"Were you fishing for a particular type of fish today?"
If yes: "What is it?"

SPECIES SOUGHT CODES
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
Leave blank if not answered or not asked.

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)

Figure 17. Roving Count Data Sheet

TEXAS PARKS AND WILDLIFE

MARINE HARVEST MONITORING — ROVING COUNT DATA

MAJOR AREA	MINOR BAY	COMPLETION DATE (mm-dd-yyyy)	COMPLETION TIME (hhmm)	STRATUM	DAY TYPE	User Def. Field	Page

Total Pages	Special Studies Code

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			

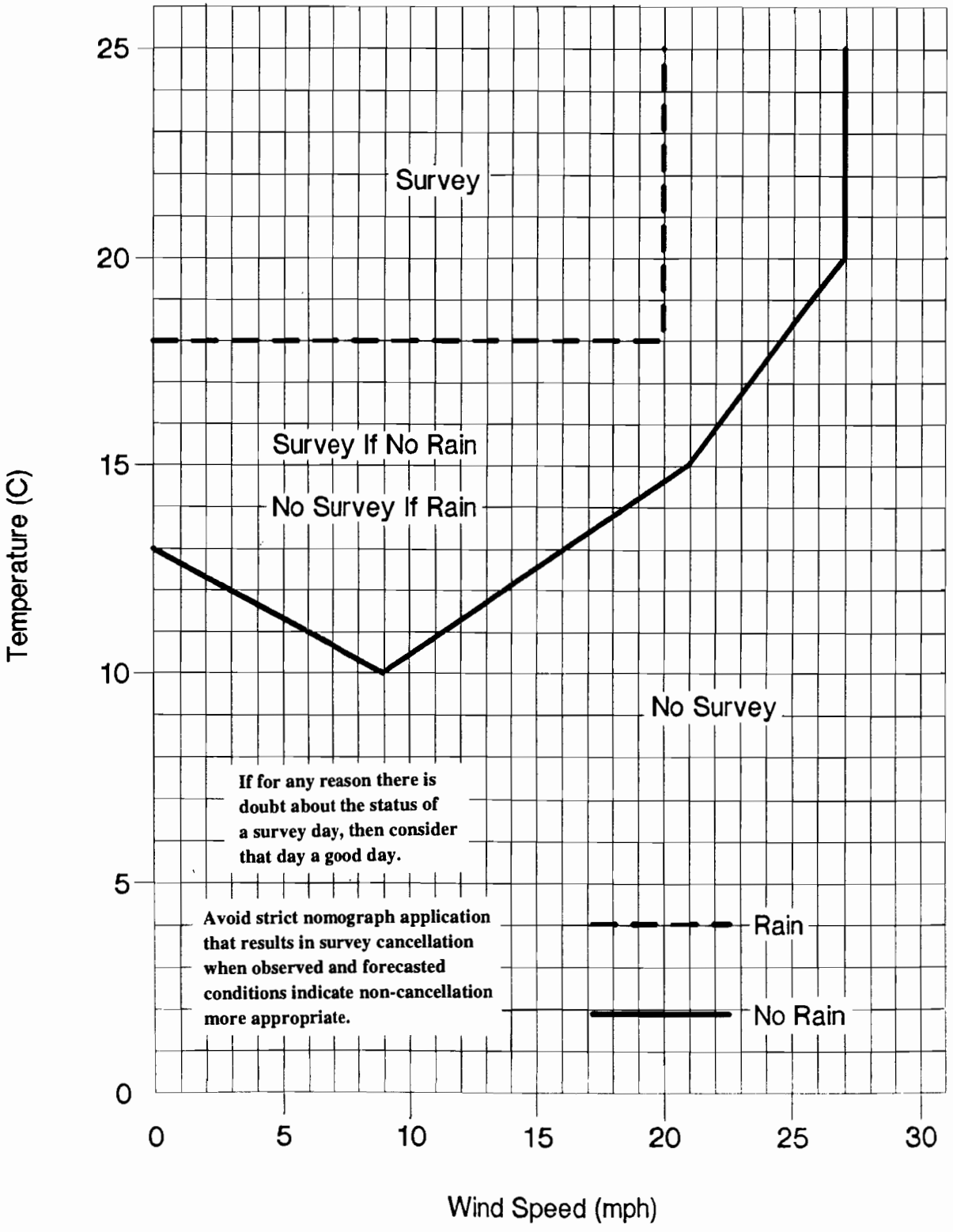
Line No.	Station	Count Time	Total Count
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

OF V3400-012 (3/02)

OTHER DOCUMENTS **Figure 18. Weekday Nomographs**

WEEKDAY NOMOGRAPH

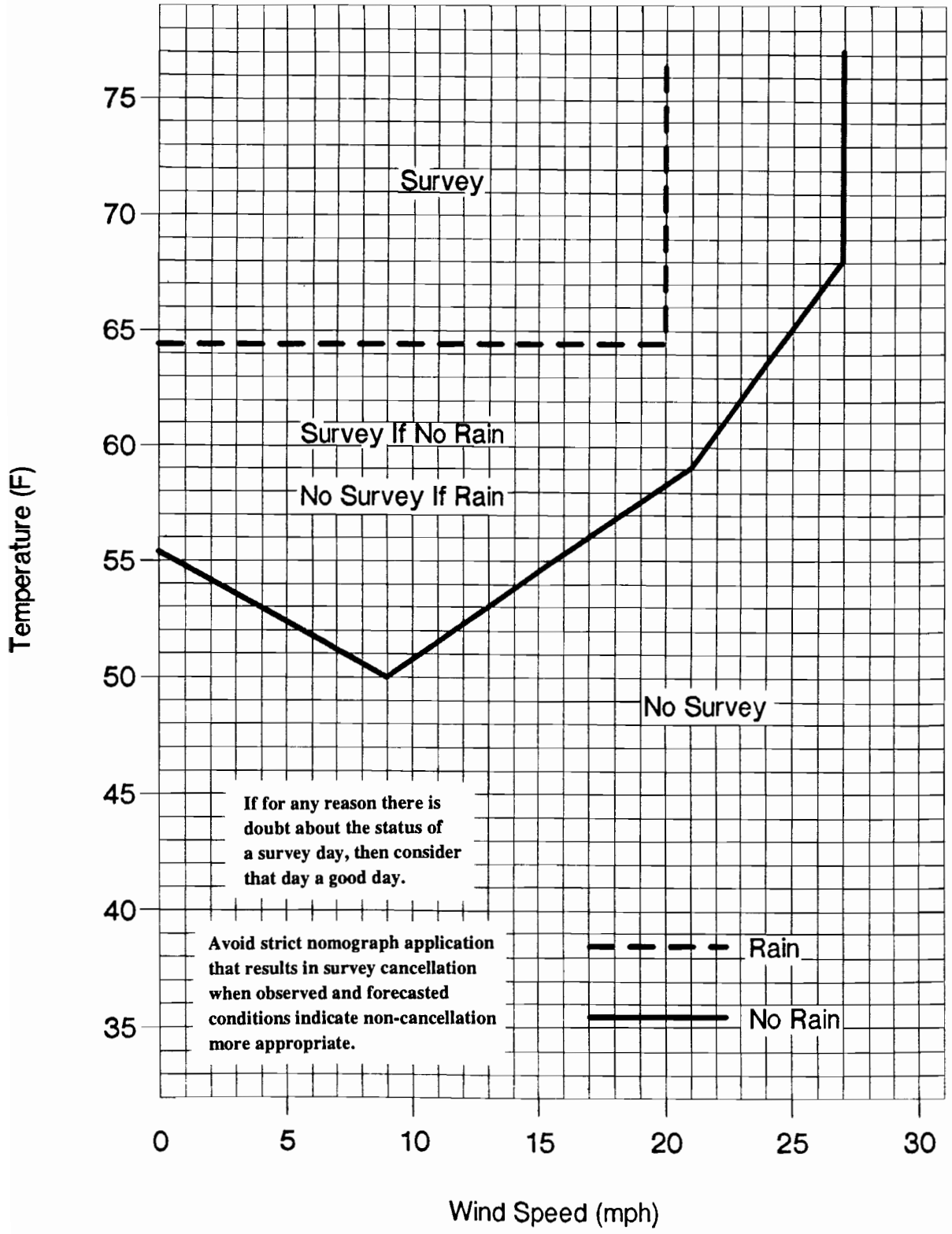
Low-Use Season



LMG (6-93)

WEEKDAY NOMOGRAPH

Low-Use Season

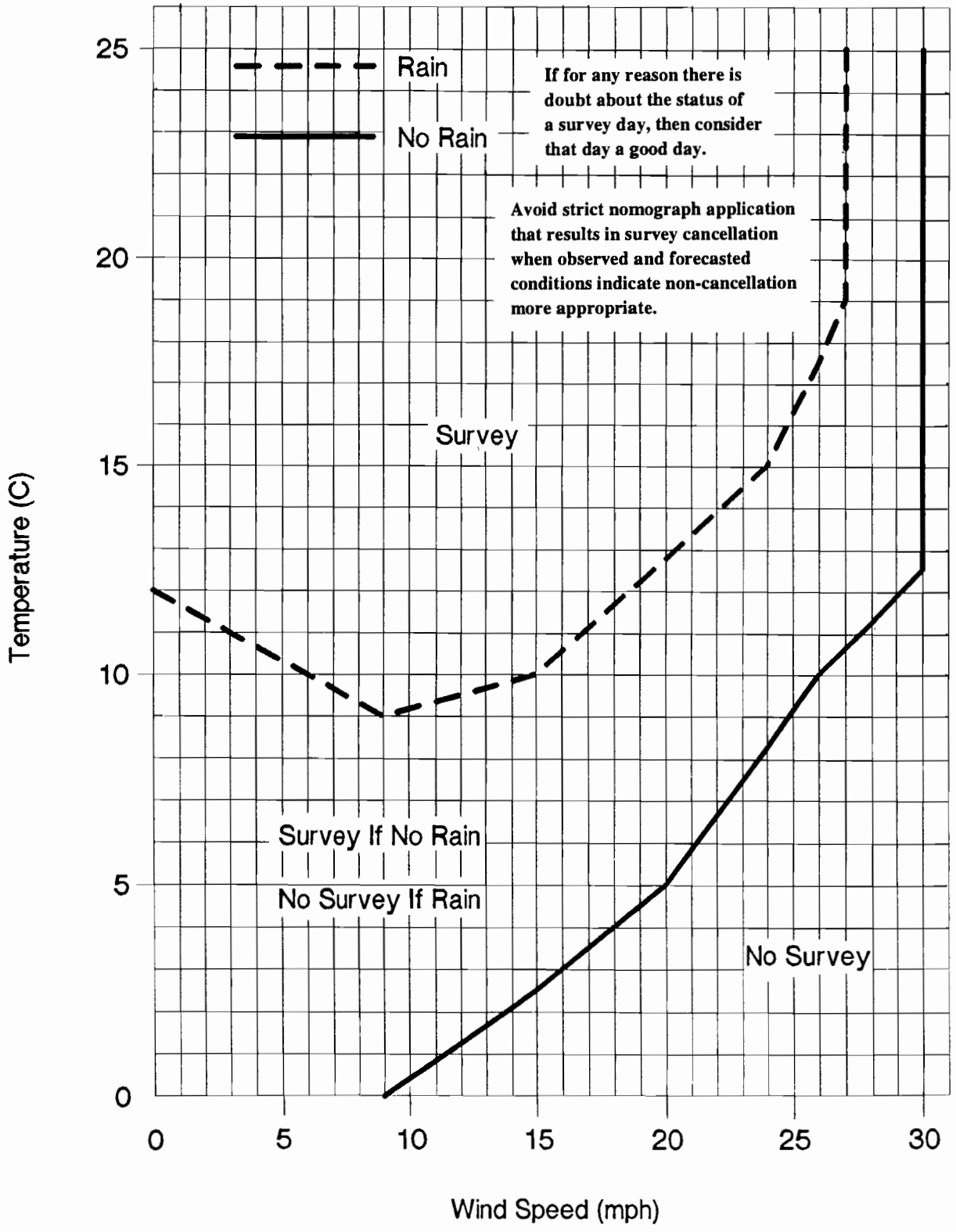


LMG (6-93)

OTHER DOCUMENTS **Figure 19. Weekend Nomographs**

WEEKEND NOMOGRAPH

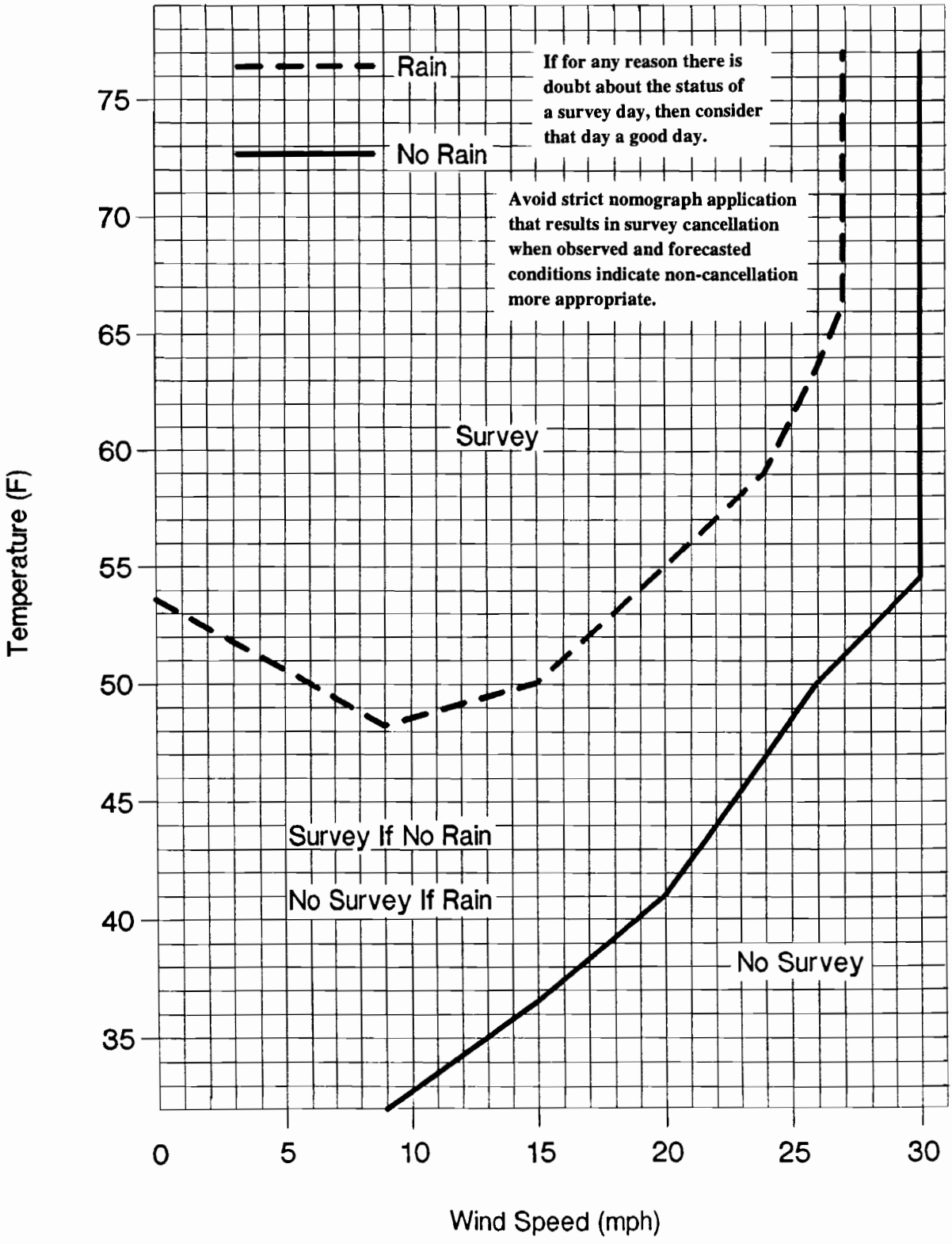
Low-Use Season



LMG (6-93)

WEEKEND NOMOGRAPH

Low-Use Season



LMG (6-93)

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

COASTAL FISHERIES QUALITY CONTROL FIELD VISITATION REPORT

Harvest Monitoring Program (Surveys)

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 present (e.g., first-aid kit with appropriate items, drinking water, sun screen, adequately charged fire extinguisher, etc.).

Comments/Actions Taken:

EQUIPMENT

__1. Department vehicle present and properly parked.
__2. Survey sign properly displayed and in good repair.
__3. Latest version of Marine Sport-Harvest Monitoring Operations Manual present with survey schedule and necessary code lists included.
__4. Wristwatch set to correct time or adequately-charged cellular phone.
__5. Thermometer and compass present for on-site measurement of meteorological conditions.
__6. Map of surrounding waters present to aid in "minor bay" determination.
__7. Suitable fish identification book(s) and TPWD shark identification and regulations brochure present.
__8. Ample supply of data sheets and pencils present, as well as current versions of fishing regulation booklets, bag/size limit cards, and water safety digests.
__9. Waterproof data sheets and rain gear present.
__10. Appropriate measuring boards present, 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 present as backup.
__11. Appropriate catch handling equipment present (e.g., bushel basket or tub, 5-gallon bucket, etc.).
__12. Cloth or paper toweling present to clean/dry hands.
__13. Appropriate special studies equipment present (if applicable).

Comments/Actions Taken:

COASTAL FISHERIES QUALITY CONTROL FIELD VISITATION REPORT

Harvest Monitoring Program (Surveys)

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.
__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)

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 present (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 present.
___3. Thermometer and compass present 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: _____

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

05-11-2011
06:15 pm

MARINE HARVEST MONITORING - INTERVIEW DATA

MAJOR AREA	MINOR BAY	STATION	COMP. DATE/TIME	STRATUM	DAY TYPE	USER DEF. FIELD	SPECIAL STUDIES CODE	PAGE
7	370	27	02-25-2011 1800	82	27			2

Ln No	ID No.	Intr Time	Trip Len.	Act	Origin No.	Origin Res.	Minor Bay	Gear	Bait	Tr. Loc	User Def. Fields A	B	C	D	E	F	Species Name	Species Code	No.	Weight Kg.	Weight .01	Len. T, S, F	Len.	Len. T, S, F	Len.	Len. T, S, F	Len.
1	8390KD	1507	5.5	1			370	1	10	1		7	1				BBS	1245	5									
2	8390KD	1507	5.5	1			370	1	10	1		7	1				PCROMIS	625	3			T	442	463	T	441		
3	8390KD	1507	5.5	1			370	1	10	1		7	1				SOCELLATUS	629	2			T	598	557				
4	5394AL	1520	5.5	1	2	205	370	1	1	1		6	3				BBS	1245	100									
5	5394AL	1520	5.5	1			370	1	1	1		6	3				CNEBULOSUS	614	5			T	385	378	T	380	394	T 378
6	8855JU	1530	2.5	1	1	178	370	1	3	1		7	1															
7	4038BA	1532	8.5	1	2	178	370	1	1	1		10	1				BBS	1245	100									
8	4038BA	1532	8.5	1			370	1	1	1		10	1				CNEBULOSUS	614	18			T	441	404	T	386	384	T 396 427
9	4038BA	1532	8.5	1			370	1	1	1		10	1				SOCELLATUS	629	1			T	647					
10	4038BA	1532	8.5	1			370	1	1	1		10	1				PCROMIS	625	1			T	436					

Figure 21. Example of Interview Data

EDIT LISTINGS

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

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

05-11-2011
06:15 pm
Page 1 of 4

MARINE RESOURCE/HARVEST MONITORING - Meteorological and Hydrological Data

MAJOR AREA: **7** MINOR BAY: **370** STATION: **27** ALT:

GEAR/STRATA: **82** GEAR SIZE: **27.0**

COMPLETION DATE/TIME: **02-25-2011 1800**

Special Studies Code: Surface Area:

Initials of Data Collector: Batch Name: **CRL2RS02111**

CONDITIONS WHEN SAMPLING BEGAN

Start Date/Time: **02-25-2011 1000**

Lighting Condition:

Latitude: **27-37-53** Longitude: **97-14-22**

Wind Speed: **13** Wind Direction: **1**

Cloud Cover: **1**

Barometric Pressure: Precipitation: **2** Fog: **2**

Wave Height:

Tide:

Shallow Water Depth: Deep Water Depth:

Max. Station Water Depth:

Temperature: **25.0** Dissolved Oxygen: Salinity:

Turbidity:

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

Completion Lighting Condition:

CONDITIONS WHEN SAMPLING WAS COMPLETED (COMPLETE IF SAMPLING TOOK >4H):

Latitude: Longitude:

Wind Speed: **13** Wind Direction: **3**

Cloud Cover: **1**

Barometric Pressure: Precipitation: **2** Fog: **2**

Wave Height:

Tide:

Shallow Water Depth: Deep Water Depth:

Max. Station Water Depth:

Temperature: **20.0** 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

05-11-2011
06:15 pm
Page 1 of 1

MAJ	MIN	STAT	A	GR	GEAR SIZE	SSC	SURF AREA	BEGINNING DATE	COMPLETION TIME	L	LAT.	LONG.	WSP	W	C	BARO	P	F	W	T	WATER DEPTH SHAL	DEEP	MAX TEMP	DO	SAL	TUR	BOTTOM
7	370	27		82	27.0			02-25-2011	1000		27-37-53	97-14-22	13	1	1		2	2					25.0				
Batch: CRL2RS02111								02-25-2011	1800				13	3	1		2	2					20.0				

1 Hydro data sheet(s) are on this report

EDIT LISTINGS **Figure 24. Example of Roving Count Data**

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

05-11-2011
06:10 pm
Page 2 of 2

MARINE HARVEST MONITORING - ROVING COUNT DATA

MAJOR AREA	MINOR BAY	COMP. DATE/TIME	STRATUM	DAY TYPE	USER DEF. FIELD	SPECIAL STUDIES CODE	PAGE
7	0	02-18-2011 1017	82	27			1

Line No.	Station	Count Time	Total Count
1	18	0807	5
2	16	0817	17
3	1	0841	19
4	2	0846	0
5	28	0908	0
6	12	0915	15
7	13	0936	0
8	29	0942	1
9	21	0948	0
10	26	0949	0
11	22	0952	0
12	23	0957	2
13	24	0958	1
14	25	1000	0
15	19	1017	31
16	52		0

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.

New questions asked sport fishermen were as follows:

Did you buy or catch your bait shrimp?

How much did you buy or catch?

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.

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.

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

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.

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.

HIGH-USE SEASON 1991 through LOW-USE SEASON 1991-92 (Continued)

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.

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.

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

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.

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).

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

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.

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.

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

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.

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.

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

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.

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.

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

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:

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.

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.

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

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.

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.

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

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.

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.

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

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.

HIGH-USE SEASON 2001 through LOW-USE SEASON 2001-02 (Continued)

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.

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 where 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.

HIGH-USE SEASON 2001 through LOW-USE SEASON 2001-02 (Continued)

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.

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.

HIGH-USE SEASON 2002 through LOW-USE SEASON 2002-03 (Continued)

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.

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.

HIGH-USE SEASON 2002 through LOW-USE SEASON 2002-03 (Continued)

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.

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.

HIGH-USE SEASON 2003 through LOW-USE SEASON 2003-04 (Continued)

The poorly defined center of Tropical Strom 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.

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.

HIGH-USE SEASON 2003 through LOW-USE SEASON 2003-04 (Continued)

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.

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.

HIGH-USE SEASON 2004 through LOW-USE SEASON 2004-05 (Continued)

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".

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.

HIGH-USE SEASON 2004 through LOW-USE SEASON 2004-05 (Continued)

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).

All 24 batches of sport-boat survey data from 2005 were transferred from Holding File to Master File by 23 March 2006.

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.

HIGH-USE SEASON 2005 through LOW-USE SEASON 2005-06 (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.

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.

HIGH-USE SEASON 2005 through LOW-USE SEASON 2005-06 (Continued)

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.

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.

HIGH-USE SEASON 2006 through LOW-USE SEASON 2006-07 (Continued)

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).

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.

HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08 (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 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.

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.

HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08 (Continued)

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.

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).

HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08 (Continued)

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.

HIGH-USE SEASON 2008 through LOW-USE SEASON 2008-09 (Continued)

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.

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".

HIGH-USE SEASON 2008 through LOW-USE SEASON 2008-09 (Continued)

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.

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.

HIGH-USE SEASON 2009 through LOW-USE SEASON 2009-10 (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.

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 out-right 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).

HIGH-USE SEASON 2009 through LOW-USE SEASON 2009-10 (Continued)

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.

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 2009 were transferred from Holding File to Master File by (?) 2010.

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.

HIGH-USE SEASON 2010 through LOW-USE SEASON 2010-11 (Continued)

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.

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 2010gulf 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 2008-09, 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.

HIGH-USE SEASON 2010 through LOW-USE SEASON 2010-11 (Continued)

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.

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).

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.

Date	Subject
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)