Marine Recreational Fisheries Statistics Survey
Intercept Survey Standards
for Quality Control

Gulf States Marine Fisheries Commission

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for Quality Control

Developed By The

Data Management Subcommittee
of the
Technical Coordinating Committee

Gulf States Marine Fisheries Commission

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Table of Contents

Introduction

During February 7-9, 1989, the Gulf States Marine Fisheries Commission (GSMFC) Technical Coordinating Committee's Data Management Subcommittee hosted a workshop in Miami, Florida, the purpose of which was to examine state and federal marine recreational fishery data collection programs and make recommendations for improvement. Among many important findings, it was determined that there was no single standardized set of guidelines for quality control for such data collection programs.

Purpose

As part of the 1990 GSMFC Sport Fish Restoration Administrative Program (Wallop-Breaux), the Data Management Subcommittee developed the set of quality control standards described below.

Intercept Survey Standards for Quality Control

1.0 Sampler Qualifications and Experience

1.1 Samplers hired must have education or experience in fisheries.

1.2 Samplers should have educational background or field experience in identifying fish species.

1.3 Samplers should have an aptitude for effectively interviewing people.

2.0 Sampler Testing/Screening for Hiring and Training

2.1 Testing to determine qualifications of samplers shall include verification of their ability to identify reasonable numbers of marine fish species expected to be encountered in the area they will sample. The ability to key out unknown fish by means of a marine fish key must be certified. In addition, testing should also determine the ability to successfully interview people in the area to be sampled.

2.2 Samplers must be trained in the objectives, goals, and operation of the survey so they can address these issues with anglers in the field.

2.3 Samplers must be trained in proper procedures for conducting the interview and coding the intercept form. Fish species codes must

be from the approved code list. Training should also address local names of fish and gear found in the area.

2.4 Final testing and training shall be conducted in the field by the sampling supervisor for the area in which the sampler will work.

2.5 Testing and training of samplers shall include participation by interested National Marine Fisheries Service (NMFS) and state personnel.

3.0 Standards for the Field Sampler in Conducting the Field Interview

3.1 Collect and record accurately and fully all demographic and trip information indicated on the intercept form.

3.2 Identify all fish in the anglers' catch to the lowest taxonomic levels possible, preferably genus and species. The only valid species codes are listed on the species code list and must be the only ones used by the sampler.

3.3 Samplers must not rely on angler identification of fish under any circumstances except for released fish.

3.4 All fish in the anglers' catch will be measured and weighed unless refused by the angler. If necessary, an appropriate aliquot of fish of each species will be selected at random for measuring individual lengths and weights. (Note: Weights may be omitted if length-weight conversions are available to generate the weight from the measured length.)

3.5 Fish lengths shall be determined as total length. Total length is defined as: the length as measured from the most anterior tip of the longest jaw to the most posterior tip of the tail. Species for which total length cannot be measured, as specified in the Appendix, will be measured for fork or other length. All length measurements shall be made by means of a measuring board to the nearest millimeter.

3.6 Interviews will be conducted at the fishing or landing site at the completion of the fishing trip with the exception of the shore mode. Some shore mode interviews may be conducted on incomplete trips because of the difficulty of intercepting anglers in this mode. These incomplete trips will not comprise more than 20% of the intercepts for this mode in any single wave.

3.7 Samplers shall strictly adhere to assignments and follow established alternate site selection procedures.

3.8 Samplers will be trained in random sampling and interviewing techniques (including the use of prompts where appropriate) and principles so that decisions on subsampling anglers at high use sites can be properly determined under any special or unusual circumstances (e.g., treatment of charterboats).

3.9 Samplers should wear appropriate attire and present themselves in a professional manner.

3.10 Samplers shall be responsible for having all equipment on site in a clean and good working order including proper calibration of scales.

4.0 Supervision

4.1 Supervision of samplers in the field shall include a minimum of one full-time fishery biologist supervisor for Florida and one for Alabama, Mississippi, and Louisiana. This supervisor shall have a minimum of a B.S./B.A. in fisheries or marine biology and field experience in the subregion he or she will supervise.

4.2 The supervisor or other contract personnel will field test and train new samplers in interview protocol, conduct of the interview and fish identification abilities, including the use of a taxonomic identification key.

4.3 The supervisor shall review and spot check intercept forms for proper protocol and biology. Audits comparing computerized data to field intercept forms will be conducted to insure an error rate of no more than one half of one percent.

4.4 The supervisor will conduct announced or unannounced spot checks of samplers in the field at least twice a year to insure compliance with all procedures.

4.5 All supervisors shall maintain coordination and communication with the state fishery agency, state sampling programs, and field personnel. The supervisor should also maintain dialogue with the NMFS regional recreational fisheries coordinators.

5.0 Intercept Forms and Processing

5.1 The data collection contractor will edit the data while writing the intercept tape to eliminate any of the following errors:

5.1.1 Unresolved cross-references between record types 1, 2, 3, and 4.
5.1.2 Duplicate identification codes on type 1 records.
5.1.3 Invalid state and county codes for the intercept location.
5.1.4 Invalid fish identification codes (not from the approved species code list).
5.1.5 Missing lengths for type 3 records (must be an actual length or 9-filled indicating a refusal by the angler).
5.1.6 Length values that exceed the maximum length recorded for that particular species.
5.1.7 Improper number of type 2 or 3 records to match with the number of these records indicated on the corresponding type 1 record.
5.1.8 Improper site or area codes.

5.2 Edit checks should verify that the proper number of type 3 records (measured lengths) exist for the number of fish reported caught on the angler's type 1 record.

5.3 The dates reported on each record shall be verified as a valid date for the particular wave in which the interview was conducted.

6.0 Communications and Coordination

6.1 The survey contractors, supervisors, and/or administrators, or their appropriate representatives, shall meet twice annually with the Gulf States Marine Fisheries Commission Technical Coordinating Committee's Data Management Subcommittee or their representative along with any other groups or contractors involved in the survey for the region.

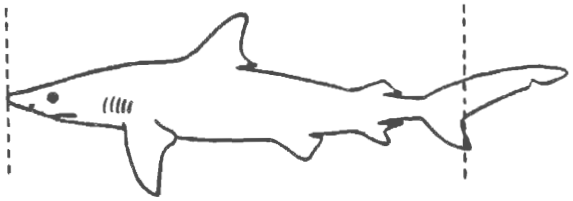
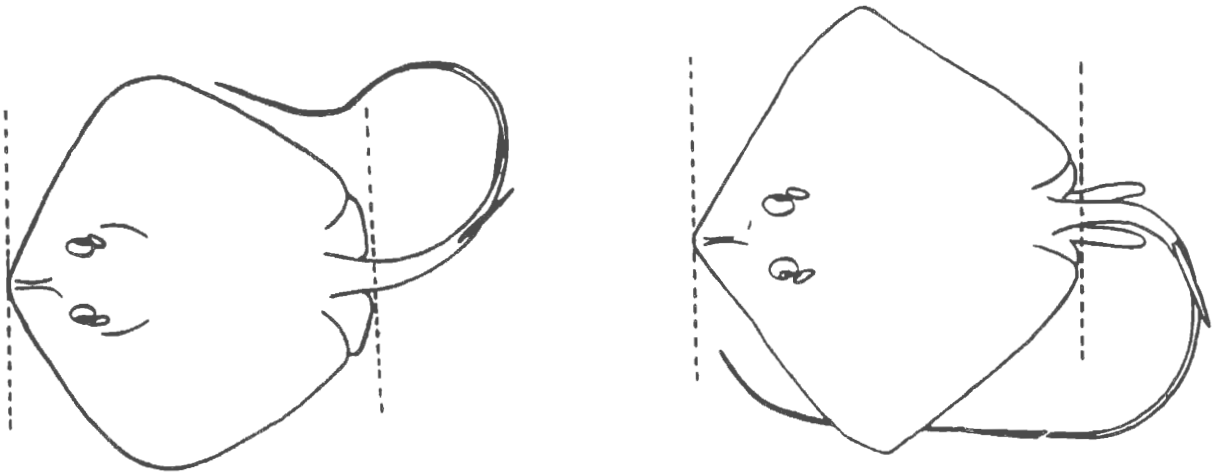
6.2 These meetings shall provide feedback and communication between the telephone contractors, intercept contractors, supervisors, and committee members.

6.3 Follow-up communication shall be made to field personnel where appropriate.

6.4 Acceptable performance standards and associated disciplinary actions for samplers shall be developed at these meetings.

Appendix

Table 1. Common name, scientific name, and recommended length measurement of fish species.

Common Name	Scientific Name	Recommended Measurement
Sharks	-	Fork Length
		
Skates and Rays	-	Standard Length
		
Sea Catfish	Ariidae	Fork Length
Bluefish	*Pomatomus saltatrix*	Fork Length
Herrings	Clupeidae	Fork Length
Sand Perch	*Diplectrum formosum*	Standard Length
Jacks and Pompanos	Carangidae	Fork Length
Dolphins	Coryphaenidae	Fork Length
Yellowtail Snapper	*Ocyurus chrysurus*	Fork Length
Mojarras	Gerreidae	Fork Length
Grunts	Pomadasyidae	Fork Length
Bank Sea Bass	*Centropristis ocyurus*	Standard Length
Rock Sea Bass	*Centropristis philadelphica*	Standard Length
Barracudas	Sphyraenidae	Fork Length
Tunas and Mackerels	Scombridae	Fork Length