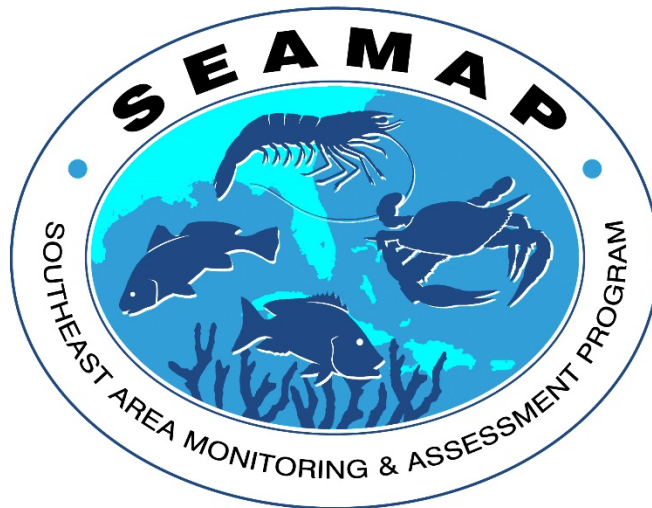


# SEAMAP

## Vertical Line Data Structures



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## Introduction

The SEAMAP Data Management System (DMS) is a relational database of survey data containing information from the five Gulf States and National Marine Fisheries Service (NMFS). The surveys are conducted throughout the year following established protocols and methods.

This document provides detailed information on the data structures used to store survey results.

## List of Tables

1. [CRUISES](#) - Specific information on a survey. Type of survey and dates.
2. [Station\\_Data](#) - Information on sampling locations during a survey.
3. Catch\_Data – Information on Biological catch at a specific survey station.

## Detailed Table descriptions.

### **CRUISES**

*Cruise Record*

Field Name	Field Type
Cruise_Id	INTEGER Primary Key
Cruise_Start	Date (YYYY-MM-DD)
Cruise_End	Date (YYYY-MM-DD)
Cruise_Source	CHAR(2)
Cruise_Title	CHAR(50)
Cruise_Vessel	CHAR(10)
Cruise_Type	CHAR(2)

#### **Field Descriptions – CRUISES:**

--Cruise\_Id is a unique integer assigned for each entry.

--Cruise\_Start contains the date the first station for that survey was sampled.

--Cruise\_End contains the date the last station for that survey was sampled.

--Cruise\_Source is a two digit code for the source (SEAMAP Partner) that collected the data.

--Cruise\_Title contains a descriptive title for the survey

--Cruise\_Vessel contains text string representing survey vessel number. In some cases multiple vessel numbers may be appended to form content if multiple vessels utilized during survey.

--Cruise\_Type – Two character field typically contains string “BL” for Bottom longline surveys.

## Station\_Data

### Station\_Data Record

Field Name	Field Type
SID	INTEGER Primary Key
CID	INTEGER
DATE	Date (YYYY-MM-DD)
VESSEL	CHAR(255)
SOURCE	CHAR(2)
SEAMAPSTATION	CHAR(255)
STA_LAT	DECIMAL(8,2)
STA_LON	DECIMAL(8,2)
SECCHI	DECIMAL(4,2)
DEPTH	DECIMAL(5,2)
DEPTHFISHED	DECIMAL(5,2)
TIME	INTEGER(4)
TEMPSUR	DECIMAL(4,2)
TEMPMID	DECIMAL(4,2)
TEMPMAX	DECIMAL(4,2)
SALSUR	DECIMAL(4,2)
SALMID	DECIMAL(4,2)
SALMAX	DECIMAL(4,2)
DOSUR	DECIMAL(4,2)
DOMID	DECIMAL(4,2)
DOMAX	DECIMAL(4,2)
DFTEMP	DECIMAL(8,5)
DFSAL	DECIMAL(8,5)
DFDO	INTEGER(4)
TIMESOAK	INTEGER(4)
GEARCODE	CHAR(255)
STRUCTTYPE	CHAR(255)
STRUCTNAME	CHAR(255)
COMMENT	CHAR(255)
ENV_LAT	DECIMAL(8,2)
ENV_LON	DECIMAL(8,2)

### Field Descriptions – Station\_Data:

SID Unique integer for each Station\_Data record.

CID Unique integer for each entry in CRUISES record.

DATE (date in MM/DD/YYYY format)

VESSEL\_NO (text field with name of vessel or SEAMAP number if vessel has a SEAMAP number)

SOURCE (FL, AL, MS, LA, TX, or US)

SEAMAPSTATION (A concatenation of the six digit date, BL and station number for the day) – station 2 on March 16, 2012 would have a SEAMAP Station Number of 031612BL02

ENV\_LAT (Enter position of environmental data in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros)

ENV\_LON (Enter position of environmental data in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros – make sure that all values are negative in the Gulf of Mexico)

SECCHI (depth in meters of the Secchi depth)

DEPTH (depth in meters of where the environmental data was sampled)

TIMEENV (military time for start of the station) HHMM

TEMPSUR (temperature in degrees Celsius taken at the water's surface – record to 1 decimal point)

TEMPMID (temperature in degrees Celsius taken at the water's middle depth– record to 1 decimal point)

TEMPBOT (temperature in degrees Celsius taken at the water's maximum depth – record to 1 decimal point)

SALSUR (salinity in psu measured to 1 decimal point)

SALMID (salinity in psu measured to 1 decimal point)

SALBOT (salinity in psu measured to 1 decimal point)

DOSUR (dissolved oxygen (mg/L) measured to 1 decimal point)

DOMID (dissolved oxygen (mg/L) measured to 1 decimal point)

DOBOT (dissolved oxygen (mg/L) measured to 1 decimal point)

HF1LAT (Enter latitude position of starting High Flyer in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros)

HF1LON (Enter longitude position of starting High Flyer in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros – make sure that all values are negative in the Gulf of Mexico)

HF1STIME (military time for deployment of the starting High Flyer)

HF1ETIME (military time for retrieval of the starting High Flyer)

HF1Depth (depth in meters of the starting High Flyer)

HF2LAT (Enter latitude position of ending High Flyer in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros)

HF2LON (Enter longitude position of ending High Flyer in degrees, minutes, and hundredths of minutes, observing indicated decimals and entering trailing zeros – make sure that all values are negative in the Gulf of Mexico)

HF2STIME (military time for deployment of the ending High Flyer)

HF2ETIME (military time for retrieval of the ending High Flyer)

HF2DEPTH (depth in meters of the ending High Flyer)

TIMESOAK (minutes that the line fished for HighFlyer2SetTime – HighFlyer1EndTime)

GEARCODE (see Appendix 1 for a list of gear codes, multiple gears can be used with each one separated by a comma)

HOOKSIZE (Size of the hooks used on the bottom longline)

COMMENT (any comments about the station or environmental records)



## Catch\_Data

### Catch\_Data Record

Field Name	Field Type
CDID	INTEGER Primary Key
CID	INTEGER
SID	INTEGER
SEAMAPSTATION	CHAR(255)
CAMERA	CHAR(255)
GENUS	CHAR(255)
SPECIES	CHAR(255)
BIOCODE	CHAR(255)
GEARLOC	CHAR(255)
HOOKNUM	CHAR(255)
HOOKSIZE	CHAR(255)
FISHID	CHAR(255)
BAITSTATUS	CHAR(255)
SEX	CHAR(255)
GONADWT	CHAR(255)
PCL	DOUBLE(15)
SL	DOUBLE(15)
FL	DOUBLE(15)
TL	DOUBLE(15)
DW	DOUBLE(15)
WEIGHT	DECIMAL(6,2)
SAMPLES	CHAR(255)
COMMENT	CHAR(255)

### Field Descriptions – Catch\_Data:

CDID Unique integer for each Catch Data record

CID is a unique integer assigned for each entry in CRUISES table

SID is a unique integer assigned for each entry in Station\_Data table.

SEAMAPSTATION (use the station number from the station)

GENUS (genus id)

SPECIES (species id)

BIOCODE (taken from the SEAMAP biocode list)

SEX (male, female or undetermined – can be filled in later for fish or immediately for elasmobranchs)

PCL (pre caudal length in mm)

SL (standard length in mm)

FL (fork length in mm)

TL (total length in mm)

DW (disc width for rays or turtles in mm)

WGT (recorded in kg)

RELCOND (Release condition of the fish) See Appendix 2 below for release condition codes

TAGNUMBER (Include the tag number here if the fish was tagged for mark and recapture purposes)

FISHID (identifier for each fish – start with the source code from above followed by a three digit number that increases sequentially in the form AL002 for the second fish caught by Alabama)

SAMPLES (list any biological samples that were taken – otoliths, gut contents, gonads, etc.)

COMMENT (other samples taken or other events associated with the catch record)

