

NRDA SEAMAP Groundfish Dataset Documentation

This document is meant to serve as a reference for the file structure of the datasets provided from the SEAMAP Groundfish Survey. Data included is limited to the United States waters of the Gulf of Mexico, collected during the semi-annual SEAMAP Groundfish survey from 1990 - 2014. This dataset is built from data obtained from two sources. Butch Pellegrin (NMFS) provided the data collected by NMFS and GSMFC (dataset dated January 28, 2015) provided data from the state partners. Data users should be aware that the datasets are constantly being re-examined and updated. Therefore, analyses based on previous or subsequent versions of the data may yield different results.

Datasets

There are two sheets in the excel file 'Red Snapper Data SEAMAP': STATION and LENGTH. The STATION file contains information on where and when the operations (stations) took place. The LENGTH contains information about individual lengths collected for taxon at each station.

Dataset Linkage

The individual files can be linked by the VESSEL CRUISE SEAMAP variables contained within each dataset. The combination of these three fields will define a unique row of data in the STATION dataset.

Notes

This should be considered a derived analytical dataset; meaning that filtering of problem trawl stations, derivation of variables and collapsing of trawl stations has already been performed.

Under the original sampling design, trawl conducted by NFMS vessels were intended to cover a particular depth stratum, however trawls could not last longer than 55 minutes because of the lack of a turtle excluder device. Therefore, if the depth stratum was not covered in the initial 55 minutes, the trawl was brought on deck, emptied and another trawl started. In the original data, each trawl was considered a station, with each having the same SEAMAP station number. For purposes of this dataset, these individual stations have already been collapsed into one SEAMAP station.

In addition, any station that was marked with an operations code indicating a problem with the trawl, i.e. doors crossed, holes in net, hung net, etc., was removed from the final dataset.

STATION Dataset File Structure

Variable – dataset variable name

Type – character (Char) or numeric (Num) variable

Len – variable length

#	Variable	Type	Len
1	VESSEL	Char	2
2	CRUISE	Char	4
3	SEAMAP	Char	6
4	STARTLAT	Num	4
5	STARTLON	Num	4
6	ENDLAT	Num	4
7	ENDLON	Num	4
8	DATE	Num	8
9	DEPTH_FM	Num	8
10	GEARSIZE	Num	3
11	GEARTYPE	Char	2
12	GEARMESH	Num	4
13	FISHTIME	Num	8
14	TOWS	Num	8
15	YEAR	Num	8
16	TOD	Char	6
17	AREA	Char	6
18	DZ	Char	4
19	SEASON	Char	6
20	STATZONE	Num	8
21	TEMPBOTM	Num	8
22	SALBOTM	Num	8
23	CHLBOTM	Num	8
24	OXYBOTM	Num	8
25	TURBBOTM	Num	8
26	SPEED	Num	8
27	SOURCE	Char	2
28	SURVEY	Char	3
29	NUMBER	Num	8
30	CPUE	Num	8

Explanation of STATION variables

VESSEL

Numeric code assigned to each ship used to collect the data. Used to link the datasets.

- 04 – Oregon II
- 17 – Tommy Munro
- 23 – Alabama Inshore Vessels
- 35 – Lumcon Pelican
- 55 – Caretta
- 63 – Gordon Gunter
- 75 – Weatherbird II
- 77 – Alabama Discovery
- 88 – Blazing Seven

CRUISE

Cruise number assigned to the particular survey. Used to link the datasets.

SEAMAP

SEAMAP station number. Used to link the datasets.

STARTLAT

Decimal degrees of latitude for the position of the start of the trawl.

STARTLON

Decimal degrees of longitude for the position of the start of the trawl.

ENDLAT

Decimal degrees of latitude for the position of the end of the trawl.

ENDLON

Decimal degrees of longitude for the position of the end of the trawl.

DATE

Date when the trawl was started

DEPTH_FM

Depth, in fathoms, of the trawl.

GEARSIZE

Size of the gear used for the trawl, 40 stands for 42 foot.

GEARTYPE

Type of gear used for the trawl, ST is shrimp trawl.

GEARMESH

Size of the mesh on the trawl.

FISHTIME

Total time (in minutes) of the trawl. In instances where multiple trawls were done, this is the total of those individual trawls.

TOWS

Number of tows that it took to complete a SEAMAP station.

YEAR

Year the trawl was conducted.

TOD

Time of day when the trawl was started, defined by sunrise and sunset:

D – Day

N – Night

AREA

General area that the trawl was conducted:

E – Mississippi/Alabama (East Delta)

F – Florida

T – Texas

W – Louisiana (West Delta)

DZ

Depth zone the trawl was conducted in, newer survey data has been post processed to fit into one of the original depth zones.

SEASON

Season of the trawl.

STATZONE

Shrimp statistical zone that the trawl was started in.

TEMPBOTM

Bottom measure of water temperature in degrees Celsius.

SALBOTM

Bottom measure of salinity in ppt or PSU.

OXYBOTM

Bottom measure of dissolved oxygen in mg/L.

CHLBOTM

Bottom measure of chlorophyll a in milligrams per cubic meter.

TURBBOTM

Bottom measure of percent transmissivity.

SPEED

Average speed of the vessel, in knots, during the tow.

SOURCE

Code designating the collection agency:

AL – Alabama

FL – Florida

LA – Louisiana

MS – Mississippi

US – NMFS

SURVEY

Survey design that was followed during the survey; note that the start of the new design is staggered between NMFS and the states:

Old – Stratified random design with day/night, shrimp statistical zone and depth zone strata

New – Stratified random design with shrimp statistical zone and depth strata

NUMBER

Number of red snapper caught at the SEAMAP station.

CPUE

Catch per unit of effort (number per hour) of red snapper caught at a SEAMAP station.

LENGTH Dataset File Structure

Variable – dataset variable name

Type – character (Char) or numeric (Num) variable

Len – variable length

	<i>Variable</i>	<i>Type</i>	<i>Len</i>
1	VESSEL	Char	2
2	CRUISE	Char	4
3	SEAMAP	Char	6
4	BIOCODE	Num	6
5	TAXON	Char	20
6	CODE	Char	2
7	SIZE	Num	4
8	SEX	Char	1
9	MATURITY	Char	1
10	YOY	Char	1
11	IND_WT	Num	4

Explanation of LENGTH variables

VESSEL

Numeric code assigned to each ship used to collect the data (see above for vessel names).
Used to link the datasets.

CRUISE

Cruise number assigned to the particular survey. Used to link the datasets.

SEAMAP

SEAMAP station number. Used to link the datasets.

BIOCODE

Nine digit numeric code for a taxon.

TAXON

50-character field containing the full taxonomic name.

CODE

Measurement code defining the how the length was measured:

- 01 – Fork Length
- 02 – Standard Length
- 18 – Total Length
- 51 – Fork Length
- 53 – Total Length

SIZE

Measurement of the individual, measured in millimeters.

SEX

Sex of the individual measured:

- M – Male
- F – Female
- U – Unknown

MATURITY

Stage of maturity of the animal:

- 1 – Undetermined
- 2 – Resting
- 3 – Enlarging / Developing
- 4 – Running Ripe
- 5 – Spent
- 6 – Elasmobranch Mature
- 7 – Elasmobranch Immature

YOY

Field denoting whether 2 distinct size classes were captured at a station.

IND_WT

Weight of the individual, measured in kilograms.