FSCS_SVSTA – Survey Station Data

This table holds a single record for each station conducted on an Ecosystems Surveys Branch cruise. The data in this table represents the position of the tow, meteorological data, gear condition, depth, and a number of other data not related to the actual biological contents of the catch.

FIELD NAME		NULL?	DATA TYPE
CRUISE	**PK**	NOT NULL	VARCHAR2(6)
STRATUM		NOT NULL	VARCHAR2(5)
TOW		NOT NULL	VARCHAR2(3)
STATION	**PK**	NOT NULL	VARCHAR2(4)
STATUS_CODE			VARCHAR2(2)
STATYPE			VARCHAR2(2)
HAUL			VARCHAR2(2)
GEARCOND			VARCHAR2(2)
SVVESSEL	**FK**		VARCHAR2(2)
CRUNUM			VARCHAR2(2)
AREA			VARCHAR2(3)
SVGEAR			VARCHAR2(2)
BEGIN_EST_TOWDATE			DATE
END_EST_TOWDATE			DATE
BEGIN_GMT_TOWDATE			DATE
END_GMT_TOWDATE			DATE
EST_YEAR			VARCHAR2(4)
EST_MONTH			VARCHAR2(4)
EST_DAY			VARCHAR2(4)
EST_TIME			VARCHAR2(8)
GMT_YEAR			VARCHAR2(4)
GMT_MONTH			VARCHAR2(2)
GMT_DAY			VARCHAR2(2)
GMT_TIME			VARCHAR2(8)
TOWDUR			NUMBER(5,2)
SETDEPTH			NUMBER(4)
ENDDEPTH			NUMBER(4)
MINDEPTH			NUMBER(4)
MAXDEPTH			NUMBER(4)
AVGDEPTH			NUMBER(4)
BEGEKVLOG			NUMBER(8,3)
ENDEKVLOG			NUMBER(8,3)
BEGLAT			NUMBER(9,4)
BEGLON			NUMBER(9,4)
ENDLAT			NUMBER(9,4)
ENDLON			NUMBER(9,4)
WIREOUT			NUMBER(5)
PITCH			NUMBER(3)
RPM			NUMBER(4,1)

HEADING		NUMBER(4,1)
COURSE		NUMBER(4,1)
TOWDISTANCE		NUMBER(5,3)
AIRTEMP		NUMBER(5,2)
DESSPEED		NUMBER(2,1)
CLOUD		VARCHAR2(3)
BAROPRESS		NUMBER(5,1)
WINDDIR		NUMBER(4,1)
WINDSP		NUMBER(4,1)
WEATHER		VARCHAR2(3)
WAVEHGT		NUMBER(4,2)
SWELLDIR		NUMBER(3)
SWELLHGT		NUMBER(4,2)
TRASHAMT		NUMBER(4)
FULD		NUMBER(3)
TRASHSHL		NUMBER(3)
TRASHBIO		NUMBER(3)
TRASHSUB		NUMBER(3)
SURFTEMP		NUMBER(6,3)
BOTTEMP		NUMBER(6,3)
SURFSALINITY		NUMBER(6,3)
WATCH_CHIEF		VARCHAR2(30)
CHIEF_SCIENTIST		VARCHAR2(30)
HABITAT_COMMENTS		VARCHAR2(500)
STATION_COMMENTS		VARCHAR2(500)
WATCH_CHIEF_COMMENTS		VARCHAR2(500)

SVSTA Field Descriptions:

CRUISE

A six digit alphanumeric code uniquely identifying a cruise.

STRATUM

A five digit alphanumeric code designating a predefined area where a net, dredge, or other piece of gear was deployed. The stratum is made up of 3 separate parts. The first two digits determine whether the area fished is inshore or offshore North or South of Cape Hatteras. The designations are as follows:

01 = Offshore North of Cape Hatteras
03 = Inshore North of Cape Hatteras
07 = Inshore South of Cape Hatteras
08 = Offshore North of Cape Hatteras
04 = Gulf of Maine Shrimp Survey
05 = Scotian Shelf Revised
06 = Shellfish – Scallop and Clam

09 = Inshore State of Massachusetts Survey
99 = Offshore deepwater (outside of stratified area)

The third and fourth digits designate the stratum number and the fifth digit increases the length of the stratum number for revised strata after the Hague Line was established.

TOW

A three digit alphanumeric field which usually represents the sequential order that the station was selected within a stratum. Each stratum has any number of tows based on the area of the stratum.

STATION

A four digit alphanumeric field representing the unique sequential order in which randomly chosen stations have been completed. Hangups, short tows, bongos, CTD's, bottom grabs each receive a non-repeated consecutive number

STATUS_CODE

Code referencing whether or not a cruise is available in the SVDBS system. Status of data: 10 = Final data available in master tables, 15 = Preliminary data available in master tables 20 = Data unavailable in master tables.

ID

Concatenation of cruise, stratum, tow and station values.

STATYPE

A two digit alphanumeric field designating the type of tow being performed. Codes are:

1= Survey haul (random stratified)
2= Non-random haul
3= Special random add-on station haul
4= Comparison haul
5= No trawl haul (e.g. Bongo, CTD, or XBT only)
6= Site-specific haul
7= Systematic grid
8= Depletion site
9= Systematic parallel transects
0= Systematic zig-zag transects

HAUL

A two digit alphanumeric field identifying the relative success of the haul (e.g., possible problems due to non-standard tow duration). Codes are:

1= Good tow. No gear or tow duration problem.
2= Representative but some problem encountered due to gear damage or tow duration.
3= Problem tow. May or may not be representative due to gear damage or tow duration.
4= Not representative due to gear damage or tow duration.
5= No bottom trawl (e.g. Bongo, CTD, or XBT only).

GEARCOND

A two digit alphanumeric field identifying the condition of the gear (e.g., possible problems due to gear damage). Codes are:

1= No damage to insignificant damage.
2=Wing twisted or tears in upper or lower wings not exceeding 10ft; tear in square not exceeding 5 ft; tears not exceeding 3ft in upper belly or 6 ft in lower belly; cod-end liner with tears not exceeding 2 ft; parted idler; liner hanging out of cod-end.
3= Hung up with no to minor damage.
4= Parted legs, sweep, or head-rope; cod-end liner untied; wire out slippage; floats, rope, or buoys hung up on door.
5= Tear-up exceeding limits for code 2, but not total
6= Significant obstruction in trawl, such as fixed gear, rocks, mud, coral, tires, old anchors, timbers, etc. Problem with third wire; unmatched doors; strong current.
7= Crossed doors. Net was not on bottom or did not perform due to currents or other factors.
8= Open gear.
9= Hung up with major damage; total tear-up, rimrack, loss of all gear; loss of trawl; loss of one or both doors.

SVVESSEL

A two digit alphanumeric field which identifies the vessel conducting the current survey. See the station support table SV_VESSEL for all vessel codes and their descriptions.

CRUNUM

A two digit alphanumeric field representing a sequential number for each type of survey the vessel has conducted in the current calendar year. Each vessel starts each new year with 01.

AREA

A three digit number derived from the Oracle function DETERMINE_AREA, which determines the commercial statistical area based on the beginning latitude and longitude.

SVGEAR

Code referencing predominant gear type used on a cruise. Only codes for trawls are listed here:

00= Plankton, Hydrographic and/or Miscellaneous Gear
11= 36 Yankee Trawl
12= Sandy Hook Lab 3/4 Yankee Trawl
14= Sandy Hook Lab Small Bay Trawl
15= Standard 36 Yankee with Ground Cable
16= Sandy Hook Lab 36 Yankee Trawl with Chain through Cookies
17= 36 Yankee Trawl with 1/2" Liner, Cookie Sweep, and Ground Cable
19= Standard 36 Yankee with Ground Cable and Extension Piece
25= Modified 4 Seam Commercial Shrimp Trawl with 1-1/4 Codend
26= Semi-balloon Otter Shrimp Trawl
35= 1-1/2 Icelandic Trawl
39= 3/4 North Atlantic Type 2 seam trawl (3/4 Whiting)
41= Modified 41 Yankee Trawl (Accepted Code)
99= Bottom Trawl with Unknown Specifications

BEGIN_EST_TOWDATE

A date field representing the EST date and time the current trawl, dredge or other piece of gear has started sampling (e.g., 04-MAR-2001 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

END_EST TOWDATE

A date field representing the EST date and time the current trawl, dredge, or other piece of gear has completed sampling (e.g., 04-MAR-2001 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Stop Trawl' event button.

BEGIN_GMT_TOWDATE

A date field representing the GMT date and time the current trawl, dredge or other piece of gear has started sampling (e.g., 04-MAR-2001 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

END_GMT_TOWDATE

A date field representing the GMT date and time the current trawl, dredge, or other piece of gear has completed sampling (e.g., 04-MAR-2001 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Stop Trawl' event button.

EST_YEAR

A four digit field representing the EST year the current trawl, dredge or other piece of gear has started sampling (e.g., 2001). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

EST_MONTH

A two digit field representing the EST month the current trawl, dredge or other piece of gear has started sampling (e.g., 01). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

EST_DAY

A two digit field representing the EST day the current trawl, dredge or other piece of gear has started sampling (e.g., 01). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

EST_TIME

An eight digit field representing the EST time the current trawl, dredge or other piece of gear has started sampling (e.g., 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

GMT_YEAR

A four digit field representing the GMT year the current trawl, dredge or other piece of gear has started sampling (e.g., 2001). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

GMT_MONTH

A two digit field representing the GMT month the current trawl, dredge or other piece of gear has started sampling (e.g., 01). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

GMT_DAY

A two digit field representing the GMT day the current trawl, dredge or other piece of gear has started sampling (e.g., 01). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

GMT_TIME

An eight digit field representing the GMT time the current trawl, dredge or other piece of gear has started sampling (e.g., 23:13:32). In the case of FSCS, it is the date and time the officer on the bridge has clicked on the 'Start Trawl' event button.

TOWDUR

A five digit number indicating the duration of the current tow to the nearest hundredth of a minute (e.g., 30.02).

SETDEPTH

A four digit number recording the depth, to the nearest meter, at the start of a trawl, dredge, or other survey gear deployment.

ENDDEPTH

A four digit number recording the depth, to the nearest meter, at the end of a trawl, dredge, or other survey gear deployment.

MINDEPTH

A four digit number recording the minimum depth, to the nearest meter, during a survey gear deployment. The SCS TrawlEvent used with FSCS records depth readings every 10 seconds during a typical 30-minute bottom trawl survey tow.

MAXDEPTH

A four digit number recording the maximum depth, to the nearest meter, during a survey gear deployment. The SCS TrawlEvent used with FSCS records depth readings every 10 seconds during a typical 30-minute bottom trawl survey tow.

AVGDEPTH

A four digit number recording the average depth, to the nearest meter, during a survey gear deployment. The SCS TrawlEvent used with FSCS records depth readings every 10 seconds during a typical 30-minute bottom trawl survey tow.

BEGEKVLOG

An 8 digit number measuring to the nearest thousandth of a nautical mile (e.g., 14564.345). Used to mark the beginning of a survey trawl for acoustic data purposes.

ENDEKVLOG

An 8 digit number measuring to the nearest thousandth of a nautical mile (e.g., 14564.345). Used to mark the end of a survey trawl for acoustic data purposes.

BEGLAT

A 9 digit number used to mark the starting latitude of the trawl, measured to the nearest ten thousandths of a second (e.g., 4414.8523).

BEGLON

A 9 digit number used to mark the starting longitude of the trawl, measured to the nearest ten thousandths of a second (e.g., 07714.8523).

ENDLAT

A 9 digit number used to mark the ending latitude of the trawl, measured to the nearest ten thousandths of a second (e.g., 4414.8523).

ENDLON

A 9 digit number used to mark the ending longitude of the trawl, measured to the nearest ten thousandths of a second (e.g., 07714.8523).

WIREOUT

A five digit number indicating the amount of wire paid-out, to the nearest meter with the last mark at the waters surface. This field is comparable to the CABLE field in the SVSTA view. The data in this field are not currently captured via an SCS sensor, and will therefore, not mach the starboard and port wireout values since the point of zeroing the sensor readout is while the doors are on the deck.

PITCH

A three digit number indicating the amount of propeller pitch used during a survey trawl, measured to the nearest whole percent.

RPM

A four digit number indicating the engine RPM during a survey gear deployment, measured to the nearest tenth of a revolution per minute (e.g., 210.5).

HEADING

A four digit number measuring the current heading of the vessel, measured to the nearest tenth of a degree.

COURSE

A four digit number measuring the current course of the vessel, measured to the nearest tenth of a degree.

TOWDISTANCE

A five digit number indicating the distance traveled during a survey gear deployment, measured to the nearest thousandth of a nautical mile (e.g., 2.452).

AIRTEMP

A five digit number indicating the air temperature at the start of a survey gear deployment, measured to the nearest hundredth of a degree celsius.

DESSPEED

A two digit number indicating the designated speed for a particular survey gear.

CLOUD

A three digit alphanumeric field indicating the amount of cloud cover observed at a survey gear deployment.

BAROPRESS

A five digit number indicating the barometric pressure at a survey gear deployment, measured to the nearest tenth of a millibar (e.g., 1018.1).

WINDIR

A four digit number indicating the direction of the wind during a survey gear deployment, measured to the nearest tenth of a degree.

WINDSP

A four digit number indicating the speed of the wind at a survey gear deployment, measured to the nearest tenth of a nautical mile.

WEATHER

A three digit alphanumeric code for the current weather conditions. See the station support table WEATHER for all codes and their descriptions.

WAVEHGT

A four digit number indicating the height of the waves at a survey gear deployment, measured to the nearest hundredth of a meter.

SWELLDIR

A three digit number indicating the direction of the swells at a survey gear deployment, measured to the nearest degree.

SWELLHGT

A four digit number indicating the height of the swells at a survey gear deployment, measured to the nearest hundredth of a meter.

TRASHAMT

A four digit number indicating the amount of non-coded items found in the trawl catch, measured to the nearest liter.

FULD

A three digit number indicating the fullness of the dredge, measured to the nearest bushel. *Used on scallop and clam surveys only.*

TRASHSHL

A three digit number indicating the percentage of shell debris found in the dredge, measured to the nearest percent. *Used in scallop and clam surveys only.*

TRASHBIO

A three digit number indicating the percentage of non-coded biological debris found in the dredge, measured to the nearest percent. *Used in scallop and clam surveys only*.

TRASHSUB
A three digit number indicating the percentage of substrate debris found in the dredge, measured to the nearest percent. *Used in scallop and clam surveys only.*

SURFTEMP
Surface temperature of water (degrees Celsius).

BOTTEMP
Bottom temperature.

SURFSALINITY
Salinity at the surface of the water.

BOTSALINITY
Salinity at the bottom.

WATCH_CHIEF
A 30 character field indicating the name of the Watch Chief.

CHIEF_SCIENTIST
A 30 character field indicating the name of the Chief Scientist.

HABITAT_COMMENTS
A 500 character field for indicating the non-coded species found in the catch.

STATION_COMMENTS
A 500 character field for indicating comments from the bridge officers.

WATCH_CHIEF_COMMENTS
A 500 character field indicating any comment the Watch Chief may have about the current tow.

FSCS_SVCAT – Survey Species Catch Data

The table FSCS_SVCAT contains a record for the total catch number and weight for each species caught at a given station.

Name	Null?	Type
CRUISE	NOT NULL	VARCHAR2(6)
STRATUM	NOT NULL	VARCHAR2(5)
TOW	NOT NULL	VARCHAR2(3)
STATION	NOT NULL	VARCHAR2(4)
STATUS_CODE		VARCHAR2(2)
ID		VARCHAR2(18)
SVSPP	NOT NULL	VARCHAR2(3)
CATCHSEX	NOT NULL	VARCHAR2(1)
RECCATCHNUM		NUMBER(8)
EXPCATCHNUM		NUMBER(8)
RECCATCHWT		NUMBER(9,3)
EXPCATCHWT		NUMBER(9,3)
LOGGED_SPECIES_NAME	NOT NULL	VARCHAR2(45)
CATCH_COMMENT		VARCHAR2(500)

FSCS_SVCAT Field Descriptions:

CRUISE, **STRATUM, TOW, STATION, STATUS_CODE, ID** - See FSCS_SVSTA table above for definitions.

SVSPP

A three digit alphanumeric field used to code each species caught in a trawl or dredge.

CATCHSEX

A one digit alphanumeric code used to identify species that are sexed at the catch level. This code is used to represent the entire catch of a particular species and not an individual fish or invertebrate. The available catchsex codes are as follows:

0 = unsexed or unknown
1 = Male
2 = Female

RECCATCHNUM

An eight digit number indicating the total number of fish measured for a particular species.

EXPCATCHNUM

An eight digit number indicating the total number of fish for a particular species after any expansion factors have been applied. The EXPCATCHNUM field will be the same as the RECCATCHNUM field unless the species has been sub-sampled.

RECCATCHWT

A nine digit number indicating the recorded weight of the catch for an individual species, measured to the nearest thousandth of a kilogram (E.g., 45.234).

EXPCATCHWT

A nine digit number indicating the total weight of the catch for an individual species after any expansion factors have been applied, measured to the nearest thousandth of a kilogram (E.g., 45.234).

LOGGED_SPECIES_NAME

A 45 character field indicating the common name of the species caught.

CATCH_COMMENT

A 500 character field for adding any comments on a species level.

FSCS_SVLEN– Survey Species Length Data

The table FSCS_SVLEN is a summary table holding the total number of fish at a particular length interval for each species at a station. As in the FSCS_SVCAT table, these data also contain a field for holding the expanded number at length when subsampling is applied to a particular species.

Name	Null?	Type
CRUISE	NOT NULL	VARCHAR2(6)
STRATUM	NOT NULL	VARCHAR2(5)
TOW	NOT NULL	VARCHAR2(3)
STATION	NOT NULL	VARCHAR2(4)
STATUS_CODE		VARCHAR2(2)
ID		VARCHAR2(18)
SVSPP	NOT NULL	VARCHAR2(3)
CATCHSEX	NOT NULL	VARCHAR2(1)
LENGTH	NOT NULL	NUMBER(4,1)
RECNUMLEN		NUMBER(8)
EXPNUMLEN		NUMBER(8)
LOGGED_SPECIES_NAME		VARCHAR2(45)
LENGTH_COMMENT		VARCHAR2(100)

FSCS_SVLEN Field Descriptions:

CRUISE, **STRATUM, TOW, STATION, STATUS_CODE, ID** - See FSCS_SVSTA table above for definitions.

SVSPP, **CATCHSEX** - See table FSCS_SVCAT above for description.

LENGTH

A four digit number indicating the length of the species, measured to the nearest centimeter with the exception of lobster and shrimp which are measured to the nearest tenth of a centimeter.

RECNUMLEN

An eight digit number indicating the number of fish measured at a particular length interval.

EXPNUMLEN

An eight digit number indicating the total number of fish at a particular length interval after expansion factors have been applied.

LOGGED_SPECIES_NAME – See table FSCS_SVCAT above for a definition.

LENGTH_COMMENT

A 100 character field used for making comments on a length-by-length basis.