Planning for a New England Groundfish Data Portal

METADATA CATALOGUE

Last Updated 12/30/2021

Contents:

Table Name	SectorManager_EMDiscards
Table Description	CSV file provided to Sector Managers through GARFO's SIMM portal, specifying discards for EM trips that were audited. Discard source is from EM reviewer estimates (may have been corrected by NEFSC secondary review where necessary).
Table Data Location	Contact individual sector managers, data sharing agreements are required for individual vessels. Sector Managers access via SIMM

Field Name	**Data Type**	**Definition**
Sector ID	Int	NOAA generated index value, unique to each sector
Sector Name	String	Full name of the groundfish sector the vessel belongs to when the trip was taken
MRI	Int	Moratorium Rights Identifier (a unique numeric value associated with each permit)
Vessel Permit No	Int	Vessel permit number (a numeric value associated with each permit that is NOT necessarily unique)
Vessel Name	String	ALL CAPS HUMAN READABLE VESSEL NAME
Vessel Reg No	String	Vessel registration number (not necessarily unique), also know as hull number
Vtr Serial No	Int	This column is functionally equivalent to the VtrSerialNo column in the SectorManger_eVTR table. Serial number for each vessel trip report. When generated for eVTR, it contains the vessel permit number, followed by a six digit date (Year, Month, Day) , followed by two additional numbers that indicated the hour the number was generated (11pm = 23); this distinguishes between multiple trips by the same vessel on the same day. For example: XXXXXXYYMMDDHH.
DOCID	Int	Internal NOAA identification number for a given trip.
Date Sail	Date	Date vessel left the dock. M/D/YYYY
Date Land	Date	Date vessel returned to the dock. M/D/YYYY
Area	Int	Statistical area where catch occurred, as reported by operator. A map of NOAA stat areas can be downloaded at https://cdn2.webdamdb.com/1280_EPZKN2A6cKl0.jpg?1590008585. A shapefile of the stat areas can be downloaded at ftp://ftp.nefsc.noaa.gov/pub/gis/ .
Gear Code	String	3 LETTER ALL CAPS GEAR CODE ABBREVIATIONS. Table of values: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_gear_codes_current.xls
Mesh Cat	String	(If applicable) AN ALL CAPS CODE INDICATING THE STYLE OF MESH USED. If not applicable = NA. This field is no longer included in the instructions to fishermen on how to fill out eVTR: https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/VTRReportingInstructions01October2020.pdf?W5CbZ9a98SnjhljXLI6dyRjpYCh1vZ4_
Mesh Size	Int	(If applicable) mesh size (inches)
Vtr Species Code	String	ALL CAPS ABBREVIATION OF COMMON NAME OF SPECIES. Note that this code is not interoperable with any other data stream except the VTR file

Species Name	String	HUMAN READABLE ALL CAPS COMMON NAME FOR SPECIES (not interoperable with other data sets). Table: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_species_codes_current.xls
Stock Area	String	ALL CAPS ABBREVIATION OF SPECIES AND STOCK AREA (not interoperable with other data sets, can be standardized using the .csv file at https://raw.githubusercontent.com/gamaynard/ElectronicMonitoring/250c70b5fd86869cedf5e7ac7ce93565f06a8911/stocks.csv)
Nespp3 Code	String	Northeast Fisheries Science Center species identification code from the Commercial Fisheries Database of Biological Samples (CFDBS). A partial (unorganized) table can be found here: https://noaa-edab.github.io/tech-doc/catch-and-fleet-diversity.html
Nespp4 Code	String	The 4-digit Northeast Species code; the fourth digit represents market category. See CFDBS Species Table (CFSPP) for actual codes. For discard species in the CFDISCyyyy and WODISCyy views, NESPP4 is redefined as NESPP3 preceded by a 9, e.g. yellowtail flounder is 9123
Species Itis	Int	Integrated Taxonomic Identification System number
Vtr Quantity Discard	Int	Pounds of discarded for groundfish stocks, as reported by the fisherman on the eVTR
NMFS Discard Source	String	Data source for the final data of record. May be EM (EM Reviewer), VTR (fisherman reported VTR), or VTR DELTA (VTR data as corrected by Delta factor)
NMFS Discard Quantity	Int	Pounds discarded from the source that is the final data of record
NMFS Dead Discard Quantity (ACE)	Int	Pounds of ACE discards for groundfish stocks as determined by NOAA Fisheries and adjusted to account for species- and gear-specific discard mortality ratios
Delta Last Changed	Date	Date the data was last changed. M/D/YYYY
Delta Start Date	Date	Start date for delta factor. M/D/YYYY
Delta End Date	Date	End date for delta factor. M/D/YYYY

Table Name	SectorManager_DealerReport
Table Description	Dealer report fields that are accessible and downloadable by sector managers
Table Data Location	Contact individual sector managers, data sharing agreements are required for individual vessels. Sector Managers access via SIMM
Additional Information	Note, GARFO collects ex-vessel price paid by dealers to fishermen, but will not release it, even to the vessel owner.

Field Name	Data Type	Definition
SectorId	Int	NOAA generated index value, unique to each sector
SectorName	String	Human readable sector name associated with the SectorId
Mri	Int	Moratorium Rights Identifier (a unique numeric value associated with each permit)
VesselPermitNo	Int	Vessel permit number (a numeric value associated with each permit that is NOT necessarily unique)
VesselName	String	ALL CAPS HUMAN READABLE VESSEL NAME
VesselRegNo	Int	Vessel registration number (not necessarily unique)
VtrSerialNo	Int	Serial number for each vessel trip report. Contains the vessel permit number, followed by a six digit date, followed by two additional numbers that I am unclear of the meaning of. For example: XXXXXXYYMMDDXX
StateLand	Char	Two character postal abbreviation for the state where the catch was landed
PortLand	String	Human readable name of the port where the catch was landed
PortCode	Int	10 digit port identification number
DealerName	String	ALL CAPS HUMAN READABLE DEALER NAME
DealerPermitNo	Int	3 or 4 digit dealer permit number
DateSold	Date	M/D/YYYY when the catch was sold
MarketCategoryCode	Char	Two character code to indicate the market category for a species sold to a dealer. See cfdbs.safismarket for category descriptions
GradeCode	Int	Code describing the grade of the fish.
Nespp3Code	Int	Northeast Fisheries Science Center species identification code from the Commercial Fisheries Database of Biological Samples (CFDBS). A partial (unorganized) table can be found here: https://noaa-edab.github.io/tech-doc/catch-and-fleet-diversity.html
Nespp4Code	Int	The 4-digit Northeast Species code; the fourth digit represents market category. See CFDBS Species Table (CFSPP) for actual codes. For discard species in the CFDISCyyyy and WODISCyy views, NESPP4 is redefined as NESPP3 preceded by a 9, e.g. yellowtail flounder is 9123
SpeciesItis	Int	Integrated Taxonomic Identification System number
SpeciesName	String	HUMAN READABLE ALL CAPS COMMON NAME FOR SPECIES (not interoperable with other data sets)
LandedWeight	Int	Landed weight of fish (lbs)

LiveWeight	Int	Live weight of fish (lbs). Should be equal to landed weight for species that are landed whole (e.g., dogfish) and more than landed weight for species that are cut or gutted at sea (e.g. groundfish). It should never be less than the landed weight.

Table Name	SectorManager_eVTR
Table Description	Electronic Vessel Trip Report data available to sector managers. Specification documentation available: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/eVTRTechnicalRequirementsRev.1.3.pdf
Table Data Location	Contact individual sector managers, data sharing agreements are required for individual vessels. Sector Managers access via SIMM
Caution	Note that this table is not directly comparable with the GARFO_eVTR table because of the difference in column names and data formatting, so some editing is necessary to compare them.

Field Name	Data Type	Definition
Mri	Int	Moratorium Rights Identifier (a unique numeric value associated with each permit)
VesselPermitNo	Int	Vessel permit number (a numeric value associated with each permit that is NOT necessarily unique)
VesselName	String	ALL CAPS HUMAN READABLE VESSEL NAME
VesselRegNo	Int	Vessel registration number (not necessarily unique)
VtrSerialNo	Int	This column is functionally equivalent to the VtrSerialNo column in the SectorManger_eVTR table. Serial number for each vessel trip report. When generated for eVTR, it contains the vessel permit number, followed by a six digit date (Year, Month, Day) , followed by two additional numbers that indicated the hour the number was generated (11pm = 23); this distinguishes between multiple trips by the same vessel on the same day. For example: XXXXXXYYMMDDHH. For paper VTRs, this number is whatever number is pre-printed on the paper; not unique (paper VTR numbers were reused).
DateSail	Date	M/D/YYYY date the vessel left the dock at the start of the trip
DateLand	Date	M/D/YYYY date the vessel landed its catch at the end of the trip
VtrOrigin		This column seems to always be blank; I'm guessing it refers to "paper" or "electronic" but I'm not sure
Area	Int	Statistical area where catch occurred. A map of NOAA stat areas can be downloaded at https://cdn2.webdamdb.com/1280_EPZKN2A6cKl0.jpg?1590008585. A shapefile of the stat areas can be downloaded at ftp://ftp.nefsc.noaa.gov/pub/gis/
PortLand	String	Human readable name of the port where the catch was landed. Functionally equivalent to PORT_LANDED in the GARFO_eVTR download. Table of ports: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_port_listing_current.xlsx
PortCode	Int	10 digit port identification number
Latitude	Int	DDMMSS format
Longitude	Int	DDMMSS format
VtrSpeciesCode	String	ALL CAPS ABBREVIATION OF COMMON NAME OF SPECIES. Note that this code is not interoperable with any other data stream except the EM Discard file
DealerName	String	ALL CAPS HUMAN READABLE DEALER NAME

DealerPermitNo	Int	3 or 4 digit dealer permit number. Functionally the same as DEALER_NUM in the GARFO_eVTR download.
DateSold	Date	M/D/YYYY date the catch was sold
Nespp3Code	Int	Northeast Fisheries Science Center species identification code from the Commercial Fisheries Database of Biological Samples (CFDBS). A partial (unorganized) table can be found here: https://noaa-edab.github.io/tech-doc/catch-and-fleet-diversity.html
Nespp4Code	Int	The 4-digit Northeast Species code; the fourth digit represents market category. See CFDBS Species Table (CFSPP) for actual codes. For discard species in the CFDISCyyyy and WODISCyy views, NESPP4 is redefined as NESPP3 preceded by a 9, e.g. yellowtail flounder is 9123
SpeciesItis	Int	Integrated Taxonomic Identification System number
SpeciesName	String	HUMAN READABLE ALL CAPS COMMON NAME FOR SPECIES (not interoperable with other data sets). Table: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_species_codes_current.xls
StockArea	String	ALL CAPS ABBREVIATION OF SPECIES AND STOCK AREA (not interoperable with other data sets, can be standardized using the .csv file at https://raw.githubusercontent.com/gamaynard/ElectronicMonitoring/250c70b5fd86869cedf5e7ac7ce93565f06a8911/stocks.csv)
GearCode	Char	3 LETTER ALL CAPS GEAR CODE ABBREVIATIONS. Table of values: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_gear_codes_current.xls
MeshCat	String	(If applicable) AN ALL CAPS CODE INDICATING THE STYLE OF MESH USED. This field is no longer included in the instructions to fishermen on how to fill out eVTR: https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/VTRReportingInstructions01October2020.pdf?W5CbZ9a98SnjhljXLI6dyRjpYCh1vZ4_
MeshSize	Float	(If applicable) mesh size (inches)
QuantityKept	Int	Amount of fish kept (lbs), hail weight. (depending on species, this could be live/whole or gutted and/or headed)
QuantityDiscard	Int	Amount of fish discarded (lbs). Technically hail weight; should be live, since no reason to gut a fish you are discarding; however, if fish are depredated, report the estimated weight of the carcass.
OperatorName	String	ALL CAPS CAPTAIN NAME (not interoperable with other data sets. For example a captain could sometimes be "MIKE" and other times be "MICHAEL").
OperatorPermitNo	Int	Permit number associated with the captain of the vessel. Unique.
StateLandFirst	Char	When this column is filled out, it is a two letter postal code for a state. It is often left blank.
PortTwo		(If applicable) Human readable name of the second port where the catch was landed

StateLandSecond	Char	(If applicable) When this column is filled out, it is a two letter postal code for the state of the second port. It is often left blank.
DocId	Int	Internal NOAA identification number for a given trip. Unclear if this is unique or not.

Table Name	GARFO_eVTR
Table Description	Electronic Vessel Trip Report data available to sector managers. Note that this table is not directly comparable with the GARFO_eVTR table because of the difference in column names and data formatting, so some editing is necessary to compare them.
Table Data Location	GARFO staff can download the data. The data appears to be two linked tables (DOCUMENT and IMAGES) from the GARFO vessel logbook database
Additional Information	Instructions for fishermen on how to fill out VTRs: https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/VTRReportingInstructions01October2020.pdf?W5CbZ9a98SnjhljXLI6dyRjpYCh1vZ4_
	eVTR Specification documentation available:
Caution	Anything that has a unique VTR number is treated as a trip. So, if the vessel filled out two separate VTRs for a trip, it would have two sub trips that would each be treated as a unique trip. If a trip has to be referenced from other data (e.g. matching records by date), all records on a given day by a vessel are assumed to be associated with the same trip.

Field Name	Data Type	Definition
DOCID	Int	Internal NOAA identification number for a given trip. Unclear if this is unique or not.
TRIP_ID	Int	This column is functionally equivalent to the VtrSerialNo column in the SectorManger_eVTR table. Serial number for each vessel trip report. When generated for eVTR, it contains the vessel permit number, followed by a six digit date (Year, Month, Day) , followed by two additional numbers that indicated the hour the number was generated (11pm = 23); this distinguishes between multiple trips by the same vessel on the same day. For example: XXXXXXYYMMDDHH. For paper VTRs, this number is whatever number is pre-printed on the paper; not unique (paper VTR numbers were reused).
NRPAGES	Int	Number of pages in document. Vessels fishing in more than one statistical area or using more than one gear type are required to complete a separate page for each gear or statistical area.
DATE_SAIL	DateTime	Date and time vessel left the dock. YYYY-MM-DD hh:mm:ss
DATE_LAND	DateTime	Primary date and time vessel docked. YYYY-MM-DD hh:mm:ss
TRIPCATG	Int	Type of trip: Commercial (1), Party (2), Charter (3), Research Set-Aside (RSA)/ Experimental Fishing Permit (EFP) (4), Research Letter of Acknowledgement (LOA) (5), Private/Recreational (personal use not commercial or for hire (6).
CREW	Int	Number of crew, including captain.
NANGLERS	Int	Number of anglers (party/charter only, excluding crew).
OPERATOR_NUM	Int	Operator permit number. Unique.

OPERATOR_NAME	String	Operator name as provided on the operator permit application. ALL CAPS CAPTAIN NAME (not interoperable with other data sets. For example a captain could sometimes be "MIKE" and other times be "MICHAEL").
DATE_SIGNED	Date	Date form was signed by operator. DD-MMM-YY
FISHED	Bool	Indicates fishing activity or negative report: Fishing activity (0); Negative report (1). If a vessel doesn't fish in any given month, they must submit a negative report.
VESSEL_PERMIT_NUM	Int	Federally issued 6-digit vessel permit number (a numeric value associated with each permit that is NOT necessarily unique)
TRIP_ACTIVITY_TYPE	Int	Subcategories used to refine trip type. List here: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_trip_activity_types_current.xls
IMGID	Int	I am not sure what this refers to. It appears to always be a numeric value containing between 7 and 15 digits. Likely an ID number corresponding to the scanned image of a paper VTR.
PAGENO	Int	Presumable the page number of the physical report that the data is located on, although this column also contains 0s and blanks (likely for electronic reporting where there is no physical page)
DATE_RECEIVED	Date	Date that the Vessel Trip Report was received by GARFO. DD-MMM-YY
SERIAL_NUM	Int	This column contains the same value as TRIP_ID, followed by two additional numbers that I am unclear of the meaning of. For example: XXXXXXXXXXXXXXxx
GEARCODE	Char	3 LETTER ALL CAPS GEAR CODE ABBREVIATIONS. Support Table of codes: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_gear_codes_current.xls
GEARQTY	Int	Quantity of gear being fished per haul.
GEARSIZE	Int	Average size of gear being fished.
AREA	Int	Statistical area where catch occurred, as reported by operator. A map of NOAA stat areas can be downloaded at https://cdn2.webdamdb.com/1280_EPZKN2A6cKl0.jpg?1590008585. A shapefile of the stat areas can be downloaded at ftp://ftp.nefsc.noaa.gov/pub/gis/ .
DEPTH	Int	Average depth fished, in fathoms.
LAT_DEGREE	Int	Latitude degrees. Unsure of which projection.
LAT_MINUTE	Int	Latitude minutes. Unsure of which projection.
LAT_SECOND	Int	Latitude seconds. Unsure of which projection.
LON_DEGREE	Int	Longitude degrees. Unsure of which projection.
LON_MINUTE	Int	Longitude minutes. Unsure of which projection.
LON_SECOND	Int	Longitude seconds. Unsure of which projection.
LORAN1	Int	Loran bearing 1 (hopefully deprecated)
LORAN2	Int	Loran bearing 2 (hopefully deprecated)

CLATDEG	Int	Latitude degree. Calculated from Loran bearing. Unsure of which projection.
CLATMIN	Int	Latitude minute. Calculated from Loran bearing. Unsure of which projection.
CLATSEC	Int	Latitude seconds. Calculated from Loran bearing. Unsure of which projection.
CLONDEG	Int	Longitude degree. Calculated from Loran bearing. Unsure of which projection.
CLONMIN	Int	Longitude minute. Calculated from Loran bearing. Unsure of which projection.
CLONSEC	Int	Longitude second. Calculated from Loran bearing. Unsure of which projection.
CLORAN1	Int	Calculated loran bearing 1 from Lat/Lon
CLORAN2	Int	Calculated loran bearing 2 from Lat/Lon
NTOWS	Int	Number of tows, sets or strings hauled.
TOWHRS	Int	Average hours per tow.
TOWMIN	Int	Average minutes per tow (minutes recorded if average tow time not recorded in whole hours).
DATETIME_HAUL_START	DateTime	Haul start time YYYY-MM-DD hh:mm:ss
DATETIME_HAUL_END	DateTime	Haul end time YYYY-MM-DD hh:mm:ss
CAREA	Int	Calculated statistical area fished based on Lat/Lon coordinates or Loran bearings entered on the VTR by the operator. A map of NOAA stat areas can be downloaded at https://cdn2.webdamdb.com/1280_EPZKN2A6cKl0.jpg?1590008585. A shapefile of the stat areas can be downloaded at ftp://ftp.nefsc.noaa.gov/pub/gis/ . The conversion table is available here: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_location_to_area_current.xls
MESH	Int	(If applicable) Mesh size (0 if no nets used)
CATCH_ID	Int	Internal primary key. Oracle generated sequence. Not useful outside of GARFO data merging.
SPECIES_ID	String	ALL CAPS SPECIES NAME ABBREVIATION. This is not interoperable with other data sets, but can be standardized using fuzzy matching and Interoperability_Species table, available at https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_species_codes_current.xls
KEPT	Int	Hail weight (Amount kept). Commercial = pounds; Party/Charter = count. Weight should be reported as landed (so depending on species or market, could be whole/live, gutted, or even wings or head off). Groundfish catch retained for home consumption should have its fillet weight entered.
DISCARDED	Int	Amount discarded. Commercial = pounds; Party/Charter = count. Should be live pounds.
SPECIES_COUNT	Int	Count of fish discarded; only populated for EM Audit Model trips where haul level reporting is required. Will not be on every haul if fishermen are doing delayed catch processing (holding discards until last haul before measuring).
DEALER_NUM	Int	Federally issued dealer catch was sold to. Functionally the same as DealerPermitNo in the SectorManager_eVTR download. List of dealers: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_dealer_listing_current.xlsx

DATE_SOLD	Date	DD-MMM-YY that catch was sold
PORT_LANDED	String	Human readable name of the port where the catch was landed. Functionally equivalent to PortLand in SectorManager_eVTR download. Table of ports: https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/evtr_port_listing_current.xlsx
STATE_LANDED	Char	2 character postal code of State where catch was landed.
VTR_RESOLUTION	String	HAUL or SUB-TRIP. SUB-TRIP is aggregated reporting for single gear or statistical area fished (may have several hauls). HAUL level reporting is only required for EM Audit Model trips; in FY21 EM trips will revert to SUBTRIP level.
FW55_EXEMPTION	Int	Indicates if vessel is fishing under the FW55 exemption.

Table Name	Interoperable_VideoReview
Table Description	JSON files with these data types are generated from groundfish video reviews and can be incorporated into the NOAA EM API. Please note that these files are stored in .json format, so data are subdivided into three categories within the file. "Haul" data is associated with a particular gear haul. "Discard" data is associated with a particular discard event, and "Other Event" data covers everything else.
Table Data Location	The description of the table is located at https://apps-nefsc.fisheries.noaa.gov/NEMIS/index.php/docs

Field Name	Data Type	Definition
review_id	Int	Used only when re-submitting an EM review.
vessel_permit_number	Int	The fishing vessel permit number.
vessel_name	String	The name of the fishing vessel
date_sail	String	Date the trip left the dock in ISO8601 standard datetime format. YYYY-MM-DD
date_land	String	Date trip returned to dock in ISO8601 standard datetime format. YYYY-MM-DD
evtr_num	Int	Electronic Vessel Trip Report serial number (formerly trip_id)
total_hauls	Int	The total number of hauls that occurred during the trip.
reviewed_hauls	Int	The number of hauls reviewed.
observed	String	Was the entire trip observable dock to dock?
comments	String	Notes pertaining to this trip or EM review.
haul_id	Int	Ordinal number of the haul within the trip.
set_start_datetime	String	Date and Time in ISO8601 standard format that this haul started, dependent upon gear_category. See guidance for when set_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls YYYY-MM-DDThh:mm:ss.sssZ
set_start_lat	Float	Latitude in decimal degrees, dependent upon gear_category. See guidance for when set_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
set_start_lon	Float	Longitude in decimal degrees, dependent upon gear_category. See guidance for when set_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
set_end_datetime	String	Date and Time in ISO8601 standard format that this haul ended, dependent upon gear_category. See guidance for when set_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls YYYY-MM-DDThh:mm:ss.sssZ
set_end_lat	Float	Latitude in decimal degrees, dependent upon gear_category. See guidance for when set_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
set_end_lon	Float	Longitude in decimal degrees, dependent upon gear_category. See guidance for when set_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .

haulback_start_datetime	String	Date and Time in ISO8601 standard format dependent upon gear_category. See guidance for when haulback_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls YYYY-MM-DDThh:mm:ss.sssZ
haulback_start_lat	Float	Latitude in decimal degrees, dependent upon gear_category. See guidance for when haulback_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
haulback_start_lon	Float	Longitude in decimal degrees, dependent upon gear_category. See guidance for when haulback_start is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
haulback_end_datetime	String	Date and Time in ISO8601 standard format, dependent upon gear_category. See guidance for when haulback_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls YYYY-MM-DDThh:mm:ss.sssZ
haulback_end_lat	Float	Latitude in decimal degrees, dependent upon gear_category. See guidance for when haulback_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
haulback_end_lon	Float	Longitude in decimal degrees, dependent upon gear_category. See guidance for when haulback_end is required here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/hauls DD.DDDDDD .
amount_reviewed	String	How much of this hauls video was reviewed? Must be FULL if observed is Y.
observed	String	Was the haul fully observed? amount_reviewed must be FULL if observed is Y.
gear_category	String	ACCSP Gear Category. See reference table for code descriptions here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/gear_category.
catch_sorting_end_dateti me	String	Date and Time in ISO8601 standard format that the catch sorting ends YYYY-MM-DDThh:mm:ss.sssZ
comments	String	Notes specific to this haul.
species_common_itis	String	Common name of discard. See reference table for code descriptions here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/species_common_itis.
species_code_itis		
weight	Float	fish weight
catch_weight_uom	String	Weight unit of measure
length	Float	Fish length
catch_length_uom	String	Fish length unit of measure
count	Int	Number of fish included in record (should be "1" if a length is included, and will be >1 if subsampling occurred)

weight_determined_by	String	Describes how weight of discards was estimated See reference table for code descriptions here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/weight_determined_by
discard_datetime	String	Date and Time in ISO8601 standard format that the discard occurred YYYY-MM-DDThh:mm:ss.sssZ
discard_lat	Float	Latitude in decimal degrees DD.DDDDDD
discard_lon	Float	Longitude in decimal degrees DD.DDDDDD
disposition	String	Disposition of specimen when it was discarded. See codes here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/disposition
reviewer_id		Official Observer ID assigned by Fisheries Sampling Branch to the reviewer.
comments	String	Notes that are specific to understanding this record.
event_category	String	Category of event. See reference table for code descriptions here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/event_category
event_code	String	Event code that describes the event. See reference table here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/ref/event_category
event_duration	String	Time interval in ISO8601 standard format. See API specific requirements here: https://fish.nefsc.noaa.gov/FSBEM/index.php/docs/readme#durations
event_datetime	String	Date and Time in ISO8601 standard format that the event occurred YYYY-MM-DDThh:mm:ss.sssZ
event_lat	Float	Latitude in decimal degrees DD.DDDDDD
event_lon	Float	Longitude in decimal degrees DD.DDDDDD

Table Name	Interoperability_Species
Table Description	Can be used with fuzzy text matching to standardize species names to ITIS or AFS conventions
Table Data Location	https://raw.githubusercontent.com/gamaynard/ElectronicMonitoring/master/species.csv

Field Name	Data Type	Definition
PEBKAC	String	Problematic permutations of species commonly encountered in New England commercial fishing datasets
ITIS	String	Integrated Taxonomic Identification System number
AFS	String	American Fisheries Society common name
GROUNDFISH	Bool	The species is managed under the Northeast Multispecies FMP (TRUE / FALSE)
NESPP3	Int	Northeast Fisheries Science Center species identification code from the Commercial Fisheries Database of Biological Samples (CFDBS). a partial (unorganized) table can be found here: https://noaa-edab.github.io/tech-doc/catch-and-fleet-diversity.html

Table Name	NERACOOS_eMOLT
Table Description	Fishing Gear Haul Bottom Temperatures from the eMOLT fleet
Table Data Location	http://www.neracoos.org/erddap/tabledap/nefsc_emolt_trawl_temp.html

Field Name	**Data Type**	**Definition**
id	Int	unique record id in the database, not that useful for analysis
vessel	String	String identifying a vessel NOT vessel name, just an index value "Vessel_1, Vessel_2, etc."
time	String	String time in the format "YYYY-MM-DDThh:mm:ssZ"
latitude	Float	Decimal degrees north
longitude	Float	Decimal degrees east
depth	Float	Sensor depth (m)
hours	Float	Length of sensor deployment
mean_temp	Float	Average temperature reading on the sensor (Celsius)
std_temp	Float	Standard deviation of temperature readings on sensor (Celsius)
flag	Char	Data quality indicator, 0=good, 1=near dock, 2=bad temperature outside 0-30, 3=depth out of range 10-500, 4=bottom depth not near <15% different

Table Name	NEFSC_ASM-TripReview
Table Description	Paper printout delivered to captains following ASM deployment on their vessel
Table Data Location	Delivered to captain on request by snail mail

Field Name
Obs_TripID
TripExt
ProgramCode
SectorID
VendorID
IncidentalTakes
Photos
FieldDiary
VesselName_HullNo
Permit
PortSail
DateSail
TimeSail
PortLand
DateLand
TimeLand
Dealer
VTRSerialNo
eVTRTripID
IceUsed
FuelUsed
DamageCost
SupplyCost
FoodCost
IcePrice
FuelPrice
WaterCost
OilCost
BaitCost
TripComments
GearCode
PrimaryGear
Target1
Target2
GearComments