

REEM Trophic Interactions Laboratory Groundfish Diet Data Tables.

The REEM Trophic Interactions Lab's Groundfish Diet Database is maintained as an Oracle database. Web based data downloads are provided as .csv files. The data are comprised of 2 basic tables maintained for 3 areas. The table types are the Predator-Prey (PredPrey) and Prey-Length (PreyLen). Within these data tables, data are separated by region. The three regions and their abbreviations are the Bering Sea (BS), Aleutians (AI) and Gulf of Alaska (GOA) The table definitions for each of the tables will be discussed in this document.

Each region is defined as the following:

Aleutian islands data: On the north side of the chain, all hauls at bottom depths of 550m or less will get assigned to AI. On the south side of the chain, all hauls (regardless of bottom depth) westward of 170 W longitude get assigned to AI. INPFC areas 541, 542, 543.

Bering Sea data: All hauls on the shelf. INPFC areas 508, 509, 512, 513, 514, 516, 517, 518, 521, 524, 530, 550.

Gulf of Alaska data: All hauls eastward of 170 W longitude, south of the Aleutians or the Alaska Peninsula. INPFC areas 610, 620, 630, 640, 650, 690.

Data Verification and Validation: Error trapping and checking occur at two levels of the stomach analysis process. Stomach data are first checked as the data are generated and entered into an online data entry form. Here, values for predator and prey species codes, stomach weight as a percentage of body weight, prey counts, sizes, and life history codes are checked for consistency and validity. These data are then error checked again using error checking scripts prior to being loaded into the production Oracle database. Haul data come from outside sources and are generally loaded directly into our Oracle database from a published database and therefore assumed to have been error checked. However, we do check for missing values and mismatched data in our database.

Useful Links

REEM:

Data Overview: <http://www.afsc.noaa.gov/REFM/REEM/Data/Default.htm>

Data Access: <http://www.afsc.noaa.gov/REFM/REEM/DBDefault.htm>

Trophic Interactions Manuals:

<http://www.afsc.noaa.gov/REFM/REEM/Manuals/Default.htm>

RACE:

Groundfish Manuals:

<http://www.afsc.noaa.gov/RACE/groundfish/manuals.htm>

Predator-Prey Table

Hauljoin

A 12-digit numeric field that does not allow null values. Each hauljoin uniquely identifies a given vessel, cruise and haul combination.

Pred_Nodc

A 10-digit numeric field that does not allow null values representing the NODC code for the predator from which the given data were collected. Consult REEM NODC code dictionary (<http://access.afsc.noaa.gov/REEM/WebDietData/DietDataIntro.php>) for definitions as some codes have been customized.

Pred_Specn

A 4-digit numeric field that does not allow null values. This is the predator specimen number assigned to the stomach when it was collected in the field.

Prey_Nodc

A 10-digit numeric field that does not allow null values representing the NODC code for the prey item. Consult REEM NODC code dictionary (<http://access.afsc.noaa.gov/REEM/WebDietData/DietDataIntro.php>) for definitions as some codes have been customized. A value of 0 indicates an empty stomach.

Prey_cnt

A 4-digit numeric field that allows null values representing the total count of a given prey. A null value indicates no count was recorded.

Prey_twt

A 10.5-digit numeric field that does not allow null values representing the total weight (g) of a given prey. A value of 0.0 indicates an empty stomach.

Pred_Stomwt

An 8.3-digit numeric field that does not allow null values representing the total content weight (g) of a given stomach. A value of 0 indicates an empty stomach.

Pred_Len

A 4.1-digit numeric field that does not allow null values representing the fork length (cm) of the predator.

Pred_Full

A 1-digit numeric field that allows null values representing predator stomach fullness at the time of analysis. Values are null, 1(empty stomach), 2(trace of prey), 3(25% fullness),

4(50% fullness), 5 (75% fullness), 6(100% fullness) and 7(distended stomach). New data should not include null values.

Pred_Wt

A 7.1 numeric field that allows null values representing the weight (g) of the predator calculated from established length-weight regressions. May be null if no established length-weight regression is available.

Year

A 4-digit numeric field that does not accept null values, acceptable values are any four, digit year.

Month

A 2-digit numeric field that does not allow null values representing the month from which the haul was collected.

Day

A 2-digit numeric field that does not allow null values representing the day of the month from which the haul was collected.

Region

A 6-place VarChar2 field that does not allow null values for region. Current values are BS (Bering Sea), GOA (Gulf Of Alaska), AI (Aleutian Islands).

Pred_name

Predator scientific and common name.

Prey_name

Prey scientific and/or common name.

Pred_Dig

A 1-digit numeric field that does not allow null values representing the state of digestion of a given prey item. Values are 1(empty stomach), 2(traces of prey) 3(75% digested), 4(50% digested), 5(25% digested) and 6(fresh prey).

Prey_Lh

A 1-digit character field that allows null values representing the life history stage of the prey item. Acceptable values for this field are shown in the life history table below.

Pred_Sex

A 1-digit numeric field that allows null values representing the sex of the predator. Acceptable values are null, 1(male), 2(female) or 3(unsexed/unknown/juvenile).

Prey_Parts

A 1-digit character field that allows null values representing the parts code, if any, of the prey item. In addition to a null value, indicating no parts code used, acceptable values for this field are shown in the prey parts table below.

Vessel

A 4-digit numeric field that does not accept null values, acceptable values are any vessel code.

Cruise

A 6-digit numeric field that does not accept null values, acceptable values are any cruise code. Survey cruise numbers are generally formatted as YEARXX (201501).

Haul

A 4-digit numeric field that does not allow null values representing the haul number from which the associated stomach data were collected.

Rlat

An 8.2 numeric field that does not allow null values representing the latitude (decimal degrees) from which the haul was collected. This represents the haul back location.

Rlong

A 9.2 numeric field that does not allow null values representing the longitude (decimal degrees) from which the haul was collected. This represents the haul back location. Eastern longitudes are represented by negative values, western by positive.

Gear_Depth

A 4-digit numeric field that allows null values representing the average gear depth (m).

Bottom_Depth

A 4-digit numeric field that allows null values representing the average bottom depth (m).

Start_Hour

A 4-digit numeric field that allows null values representing the 24 hour (hhmm) start time of a given haul.

Surface_Temp

A 4.2-digit numeric field that allows null values representing the surface water temperature (deg C).

Gear_Temp

A 4.2-digit numeric field that allows null values representing the gear water temperature (deg C).

INPFC_Area

A 3-digit numeric field that allows null values representing the INPFC/Management area from which the sample was collected.

StationID

A 9-digit alphanumeric field that allows null values representing the RACE station ID number

Start_Date

A date string that allows null values representing the start date (mm/dd/yyyy) of the haul.

Prey Length Table

Hauljoin

A 12-digit numeric field that does not allow null values. Each hauljoin uniquely identifies a given vessel, cruise and haul combination.

Pred_Nodc

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A value of 0 indicates an empty stomach.

Pred_Len

A 4.1-digit numeric field that does not allow null values representing the fork length (cm) of the predator.

Year

A 4-digit numeric field that does not accept null values, acceptable values are any four-digit year.

Month

A 2-digit numeric field that does not allow null values representing the month from which the haul was collected.

Day

A 2-digit numeric field that does not allow null values representing the day of the month from which the haul was collected.

Region

A 6-place VarChar2 field that does not allow null values for region. Current values are BS (Bering Sea), GOA (Gulf Of Alaska), AI (Aleutian Islands).

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Predator scientific and common name.

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Prey scientific and/or common name.

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A 4.2-digit numeric field that allows null values representing the gear water temperature (deg C).

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A 3-digit numeric field that allows null values representing the INPFC/Management area from which the sample was collected.

StationID

A 9-digit alphanumeric field that allows null values representing the RACE station ID number

Start_Date

A date string that allows null values representing the start date (mm/dd/yyyy) of the haul.

Prey_Sz1

An 8.3-digit numeric field that does not allow null values representing the standard length (mm) of fish prey, carapace width (mm) of Majid crabs, or carapace length of Lithodid crabs. This is the primary prey size measurement

Prey_Sex

A 1-digit numeric field that allows null values representing the sex of the prey. Acceptable values are null, 1 indicating male, 2 indicating female or 3 indicating unsexed or juvenile. A prey sex code of 5 may be used to indicate a fish length that was estimated with a method other than the Pollock otolith measurements as noted below. Values of 6-8 are used indicating the condition of walleye pollock otoliths used for estimating the length of the prey fish they were removed from. 6 indicating fair, 7 indicating good, and 8 indicating excellent. See the lab manual for a description of the protocol for using walleye pollock otoliths for estimating prey length.

Prey Parts Codes

Code	Description
blank	whole prey found or empty stomach
1	parts (different but from same taxon)
2	siphon
3	shells
4	legs
5	setae
6	chelae
9	bones
A	heads
B	eyes
C	beaks
D	tails
P	proboscis
L	leg or chelae

Prey Life History Code

Code	Description
1	egg
2	nauplius
3	zoea
4	megalops larva
5	veliger larva
6	larva
7	juvenile
8	adults
9	comb. of larvae, juv. and adults
A	combo of juv. & adults
B	combo of larvae & juv.
C	life history stage unknown
D	Polyp
E	Cypris
F	Copepodid
G	Pupa
H	Nymph
K	Medusa
L	Egg carrying female
M	egg case
Q	immature
R	subadult
S	trochophore larva
T	subadult and
U	mating pair
V	mysis
W	colony
Y	soft shell