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1) sources.csv

Column	Explanation
	A unique number that is generated and assigned to each source (e.g., 1,
source_id	2,3etc.)
publication_year	Publication year in the format: YYYY
title	Title of the source
	First author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author1	while last names are completely spelled out)
	Second author of the source in the following format: M. C. Graham or
	M. Graham (first and middle names are abbreviated by initials and a
author2	period while last names are completely spelled out)
	Third author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author3	while last names are completely spelled out)
	Fourth author of the source in the following format: M. C. Graham or
	M. Graham (first and middle names are abbreviated by initials and a
author4	period while last names are completely spelled out)
	Fifth author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author5	while last names are completely spelled out)
	Sixth author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author6	while last names are completely spelled out)
	Seventh author of the source in the following format: M. C. Graham or
	M. Graham (first and middle names are abbreviated by initials and a
author7	period while last names are completely spelled out)
	Eighth author of the source in the following format: M. C. Graham or
	M. Graham (first and middle names are abbreviated by initials and a
author8	period while last names are completely spelled out)
	Ninth author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author9	while last names are completely spelled out)
	Tenth author of the source in the following format: M. C. Graham or M.
	Graham (first and middle names are abbreviated by initials and a period
author10	while last names are completely spelled out)
url	URL associated with source, if applicable
citation	The full citation for the source
	Any additional notes about the source; for example, if the data might be
source_notes	overlapping with another source, this is indicated in this attribute
data_processing_notes	Notes about how the data were processed – in the lab or field, were
	quantities measured using scales or visually estimated, etc.
date_entered	The date the source was added to the database

	The full name of the person who entered the data (e.g., Caroline	
entered_by	Graham)	

2) gear_type_predator.csv

Column	Explanation
gear_type_predator_id	A unique number that is generated and assigned to each unique
	predator gear type for each source (e.g., 1, 2, 3etc.)
gear_type	The most basic description of the type of gear given in the
	source (e.g., trawl, gillnet, longline)
gear_length_value	The gear length
gear_length_min	If there are a range of gear lengths, then this attribute represents
	the minimum length
gear_length_max	If there are a range of gear lengths, then this attribute represents
	the maximum length
gear_length_units	The units associated with the gear length; units are fully spelled
	and plural (e.g., meters instead of meter)
gear_width_value	The gear width
gear_width_min	If there are a range of gear widths, then this attribute represents
	the minimum width
gear_width_max	If there are a range of gear widths, then this attribute represents
	the maximum width
gear_width_units	The units associated with the gear width; units are fully spelled
	and plural (e.g., meters instead of meter)
gear_depth_value	The gear depth; if the gear is reported to be deployed at the
	surface then the depth value is assigned to 0
gear_depth_min	If there are a range of gear depths, then this attribute represents
	the minimum depth; if the gear is reported to be deployed at the
	surface then the depth value is assigned to 0
gear_depth_max	If there are a range of gear depths, then this attribute represents
	the maximum depth
gear_depth_units	The units associated with the gear depth; units are fully spelled
1 . 1	and plural (e.g., meters instead of meter)
mesh_size_value	The gear mesh size
mesh_size_min	If there are a range of gear mesh sizes, then this attribute
	represents the minimum mesh size
mesh_size_max	If there are a range of gear mesh sizes, then this attribute
1	represents the maximum mesh size
mesh_size_units	The units associated with the mesh size; units are fully spelled
C. 1. 1 1	and plural (e.g., millimeters instead of millimeter)
fishing_depth_value	The fishing depth; if fishing is reported to be at the surface then
	the depth value is assigned to 0

fishing_depth_min	If there are a range of fishing depths, then this attribute represents the minimum fishing depth; if fishing is reported to be at the surface then the depth value is assigned to 0
fishing_depth_max	If there are a range of fishing depths, then this attribute represents the maximum fishing depth
fishing_depth_units	The units associated with the fishing depth; units are fully spelled and plural (e.g., meters instead of meter)
tow_speed_value	The gear tow speed
tow_speed_min	If there are a range of gear tow speeds, then this attribute represents the minimum tow speed
tow_speed_max	If there are a range of gear tow speeds, then this attribute represents the maximum tow speed
tow_speed_units	The units associated with the tow speed; units are fully spelled and plural (e.g., knots instead of knot)
duration_deployment_value	The gear duration of deployment
duration_deployment_min	If there are a range of gear durations of deployment, then this attribute represents the minimum duration of deployment
duration_deployment_max	If there are a range of gear durations of deployment, then this attribute represents the maximum duration of deployment
duration_deployment_units	The units associated with the duration of deployment; units are fully spelled and plural (e.g., minutes instead of minute)
gear_notes	Any additional comments on the gear

3) gear_type_prey.csv

Column	Explanation
gear_type_prey_id	A unique number that is generated and assigned to each unique
	prey gear type for each source (e.g., 1, 2, 3etc.)
gear_type	The most basic description of the type of gear given in the
	source (e.g., bongo net); if the prey is a diet item, then the
	gear_type is 'predator' to indicate that it was not collected from
	the environment but instead in a salmon stomach
gear_length_value	The gear length
gear_length_min	If there are a range of gear lengths, then this attribute represents
	the minimum length
gear_length_max	If there are a range of gear lengths, then this attribute represents
	the maximum length
gear_length_units	The units associated with the gear length; units are fully spelled
	and plural (e.g., meters instead of meter)
gear_width_value	The gear width
gear_width_min	If there are a range of gear widths, then this attribute represents
	the minimum width
gear_width_max	If there are a range of gear widths, then this attribute represents
	the maximum width

gear_width_units	The units associated with the gear width; units are fully spelled and plural (e.g., meters instead of meter)
gear_depth_value	The gear depth; if gear is reported to be deployed at the surface then the depth value is assigned to 0
gear_depth_min	If there are a range of gear depths, then this attribute represents the minimum depth; if gear is reported to be deployed at the surface then the depth value is assigned to 0
gear_depth_max	If there are a range of gear depths, then this attribute represents the maximum depth
gear_depth_units	The units associated with the gear depth; units are fully spelled and plural (e.g., meters instead of meter)
mesh_size_value	The gear mesh size
mesh_size_min	If there are a range of gear mesh sizes, then this attribute represents the minimum mesh size
mesh_size_max	If there are a range of gear mesh sizes, then this attribute represents the maximum mesh size
mesh_size_units	The units associated with the mesh size; units are fully spelled and plural (e.g., millimeters instead of millimeter)
fishing_depth_value	The fishing depth; if fishing is reported to be at the surface then the depth value is assigned to 0
fishing_depth_min	If there are a range of fishing depths, then this attribute represents the minimum fishing depth; if fishing is reported to be at the surface then the depth value is assigned to 0
fishing_depth_max	If there are a range of fishing depths, then this attribute represents the maximum fishing depth
fishing_depth_units	The units associated with the fishing depth; units are fully spelled and plural (e.g., meters instead of meter)
tow_speed_value	The gear tow speed
tow_speed_min	If there are a range of gear tow speeds, then this attribute represents the minimum tow speed
tow_speed_max	If there are a range of gear tow speeds, then this attribute represents the maximum tow speed
tow_speed_units	The units associated with the tow speed; units are fully spelled and plural (e.g., knots instead of knot)
duration_deployment_value	The gear duration of deployment
duration_deployment_min	If there are a range of gear durations of deployment, then this attribute represents the minimum duration of deployment
duration_deployment_max	If there are a range of gear durations of deployment, then this attribute represents the maximum duration of deployment
duration_deployment_units	The units associated with the duration of deployment; units are fully spelled and plural (e.g., minutes instead of minute)
gear_notes	Any additional comments on the gear

4) diet_data.csv

Column	Explanation
predator_id	A unique number that is generated and assigned to each
	predator sample
source_id	This number corresponds with the source_id from the
	'sources.csv' file
year_min	YYYY; if there is just one value for the year then it is
	found in this attribute; if there are a range of values for
	the year then the minimum value is found in this attribute
year_max	YYYY; if there are a range of values for the year then the
	maximum value is entered into this attribute
warm_cool_years	Either 'warm', 'cool' or NA; this attribute will only have
	a value if the samples are explicitly reported as being
	from a warm versus cool year(s) and can only be
	uniquely identified this way
odd_even_years	Either 'odd, 'even' or NA; this attribute will only have a
, and the second	value if the samples are explicitly reported as being from
	an odd versus even year(s) and can only be uniquely
	identified this way
season_min	Either 'spring', 'summer', 'autumn', or 'winter'; if there
_	is just one value for the season then it is entered into this
	attribute; If there are a range of values for the season then
	the minimum value is entered into this attribute; this
	attribute will only have a value if there is no value for the
	month/date and the source explicitly defines the temporal
	sampling period by season
season_max	Either 'spring', 'summer', 'autumn', or 'winter'; if there
_	are a range of values for the season then the maximum
	value is entered into this attribute; this attribute will only
	have a value if there is no value for the month/date and
	the source explicitly defines the temporal sampling
	period by season
month_min	Month names are completely spelled out with the first
_	letter capitalized; if there is just one value for the month
	then it is entered into this attribute; If there are a range of
	values for the month then the minimum value is found in
	this attribute
month_max	Month names are completely spelled out with the first
	letter capitalized; if there are a range of values for the
	month then the maximum value is found in this attribute
date_min	Expressed using year, month, and day; if there is just one
	value for the date then it is entered into this attribute; if
	there are a range of values for the date then the minimum
	value is found in this attribute

date_max	Expressed using year, month, and day; if there are a range of values for the date then the maximum value is found in
	this attribute
time_min	HH:MM:SS; if there is just one value for the time then it
	is found in this attribute; if there are a range of values for
	the time then the minimum value is found in this attribute
time_max	HH:MM:SS; if there are a range of values for the time
	then the maximum value is found in this attribute
lat_min	If there is just one value for the latitude then it is found in
	this attribute; If there are a range of values for the latitude
	then the minimum value is found in this attribute; values
	are in decimal degrees format
lat_max	If there are a range of values for the latitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
lon_min	If there is just one value for the longitude then it is
	entered into this attribute; If there are a range of values
	for the longitude then the minimum value is entered into
	this attribute; values are in decimal degrees format
lon_max	If there are a range of values for the longitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
predator_lowest_taxonomic_level	The lowest taxonomic level reported in the source; if a
	source reports to the species level then this attribute
	includes both the genus and species names (e.g.,
	Oncorhynchus nerka); only scientific names are reported,
1.0	not common names
predator_life_stage	Either 'juvenile', 'adult' or NA
predator_life_stage_min	If there are a mixture of juveniles and adults, then
	'juvenile' is entered here
predator_life_stage_max	If there are a mixture of juveniles and adults, then 'adult'
	is entered here
predator_freshwater_age	An integer to indicate the number of years spent living in
	freshwater
predator_freshwater_age_min	If there are a mixture of freshwater ages, then this
	attribute represents the minimum age; an integer to
	indicate the number of years spent living in freshwater
predator_freshwater_age_max	If there are a mixture of freshwater ages, then this
	attribute represents the maximum age; an integer to
	indicate the number of years spent living in freshwater
predator_ocean_age	An integer to indicate the number of years spent living in
	the ocean
predator_ocean_age_min	If there are a mixture of ocean ages, then this attribute
	represents the minimum age; an integer to indicate the
	number of years spent living in the ocean

predator_ocean_age_max	If there are a mixture of ocean ages, then this attribute represents the maximum age; an integer to indicate the
	number of years spent living in the ocean
predator_maturity	Either 'juvenile', 'immature', 'maturing' 'mature', 'kelt' (for steelhead), or NA
predator_maturity_min	If there are a mixture of maturity levels, then the minimum maturity level is found here
predator_maturity_max	If there are a mixture of maturity levels, then the maximum maturity level is found here
predator_length_value_cm	The length of a predator in centimeters (could be either fork length or total length); only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_min_cm	The minimum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_max_cm	The maximum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_value_g	The weight of a predator in grams; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_min_g	The minimum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_max_g	The maximum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_subsample_id	A unique number that is generated and assigned to predator samples if a source reports the diets of individual predators with no unique identifiers; values are assigned for each source starting from 1 and increasing by a value of 1 each time (e.g., 1,2,3); if unique subsample_ids are not required then the default value is 0

predator_sex	Either 'male', 'female' or 'unspecified'
hatchery_wild	Either 'hatchery', 'wild' or 'unspecified'
predator_replicates	The total number of predator replicates per sample
predator_notes	Any additional comments on the predator
gear_type_predator_id1	This id number corresponds with the
gear_type_predator_id1	gear_type_predator_id from the 'gear_type_predator' csv
	file
gear_type_predator_id2	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 2 types of gear used to sample predators
gear_type_predator_id3	This id number corresponds with the
gear_type_predator_tas	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 3 types of
	gear used to sample predators
gear_type_predator_id4	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 4 types of
goer type produter id5	gear used to sample predators This id number corresponds with the
gear_type_predator_id5	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 5 types of
	gear used to sample predators
type_diet_data	The diet metric reported in the source (e.g., percent
	weight of prey, index of relative importance)
diet_data_units	The diet data units (e.g., percent); if the diet data are
6 1	reported as a number then the units are left as blank
formula	The formula for the diet metric, if applicable; this is for
	metrics such as the index of relative importance or the stomach content index because they may be calculated
	differently in different sources
prey_lowest_taxonomic_level	The lowest taxonomic level reported in the source; if a
	source reports to the species level then this attribute
	should include both the genus and species names (e.g.,
	Calanus pacificus); in some cases the lowest taxonomic
	level is not a scientific name – like 'gelatinous' or
nuovi Irinadam	'zooplankton_collective' or 'miscellaneous'
prey_kingdom	The kingdom based on the lowest taxonomic level
prey_phylum	The phylum based on the lowest taxonomic level
prey_class	The class based on the lowest taxonomic level
prey_order	The order based on the lowest taxonomic level
prey_family	The family based on the lowest taxonomic level
prey_genus	The genus based on the lowest taxonomic level
prey_species	The species based on the lowest taxonomic level

value_diet_data	Diet data values for the specific prey item and the sample
prey_sex	Either 'male', 'female' or 'unspecified'
prey_life_stage	The prey life stage
prey_life_stage_min	If there are a mixture of life stages, then this attribute represents the minimum life stage
prey_life_stage_max	If there are a mixture of life stages, then this attribute represents the maximum life stage
prey_length_value_mm	The length of prey in millimeters; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_length_min_mm	The minimum length of prey in millimeters if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_length_max_mm	The maximum length of prey in millimeters if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_value_mg	The weight of prey in milligrams; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_min_mg	The minimum weight of prey in milligrams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_max_mg	The maximum weight of prey in milligrams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_notes	Any additional comments on prey

5) predator_biological_data.csv

Column	Explanation
predator_id	A unique number that is generated and assigned to each predator sample
source_id	This number corresponds with the source_id from the 'sources.csv' file

year_min	YYYY; if there is just one value for the year then it is found in this attribute; if there are a range of values for the year then the minimum value is found in this attribute
year_max	YYYY; if there are a range of values for the year then the maximum value is entered into this attribute
warm_cool_years	Either 'warm', 'cool' or NA; this attribute will only have a value if the samples are explicitly reported as being from a warm versus cool year(s) and can only be uniquely identified this way
odd_even_years	Either 'odd, 'even' or NA; this attribute will only have a value if the samples are explicitly reported as being from an odd versus even year(s) and can only be uniquely identified this way
season_min	Either 'spring', 'summer', 'autumn', or 'winter'; if there is just one value for the season then it is entered into this attribute; If there are a range of values for the season then the minimum value is entered into this attribute; this attribute will only have a value if there is no value for the month/date and the source explicitly defines the temporal sampling period by season
season_max	Either 'spring', 'summer', 'autumn', or 'winter'; if there are a range of values for the season then the maximum value is entered into this attribute; this attribute will only have a value if there is no value for the month/date and the source explicitly defines the temporal sampling period by season
month_min	Month names are completely spelled out with the first letter capitalized; if there is just one value for the month then it is entered into this attribute; If there are a range of values for the month then the minimum value is found in this attribute
month_max	Month names are completely spelled out with the first letter capitalized; if there are a range of values for the month then the maximum value is found in this attribute
date_min	Expressed using year, month, and day; if there is just one value for the date then it is entered into this attribute; if there are a range of values for the date then the minimum value is found in this attribute
date_max	Expressed using year, month, and day; if there are a range of values for the date then the maximum value is found in this attribute
time_min	HH:MM:SS; if there is just one value for the time then it is found in this attribute; if there are a range of values for the time then the minimum value is found in this attribute
time_max	HH:MM:SS; if there are a range of values for the time then the maximum value is found in this attribute

1 , .	TC4 : : 4 1 C 4 1 d '4' C 1'
lat_min	If there is just one value for the latitude then it is found in
	this attribute; if there are a range of values for the latitude
	then the minimum value is found in this attribute; values
	are in decimal degrees format
lat_max	If there are a range of values for the latitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
lon_min	If there is just one value for the longitude then it is entered
	into this attribute; if there are a range of values for the
	longitude then the minimum value is entered into this
	attribute; values are in decimal degrees format
lon_max	If there are a range of values for the longitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
predator_lowest_taxonomic_level	The lowest taxonomic level reported in the source; if a
predator_towest_taxononne_tever	source reports to the species level then this attribute
	includes both the genus and species names (e.g.,
	Oncorhynchus nerka); only scientific names are reported,
number 1:fo stage	not common names
predator_life_stage	Either 'juvenile', 'adult' or NA
predator_life_stage_min	If there are a mixture of juveniles and adults, then
	'juvenile' is entered here
predator_life_stage_max	If there are a mixture of juveniles and adults, then 'adult'
	is entered here
predator_freshwater_age	An integer to indicate the number of years spent living in
	freshwater
predator_freshwater_age_min	If there are a mixture of freshwater ages, then this attribute
_	represents the minimum age; an integer to indicate the
	number of years spent living in freshwater
predator_freshwater_age_max	If there are a mixture of freshwater ages, then this attribute
	represents the maximum age; an integer to indicate the
	number of years spent living in freshwater
predator_ocean_age	An integer to indicate the number of years spent living in
product_ocoun_ugo	the ocean
predator_ocean_age_min	If there are a mixture of ocean ages, then this attribute
predator_occan_age_mm	represents the minimum age; an integer to indicate the
produtor occur occurrent	number of years spent living in the ocean
predator_ocean_age_max	If there are a mixture of ocean ages, then this attribute
	represents the maximum age; an integer to indicate the
1	number of years spent living in the ocean
predator_maturity	Either 'juvenile', 'immature', 'maturing' 'mature', 'kelt'
	(for steelhead), or NA
predator_maturity_min	If there are a mixture of maturity levels, then the minimum
	maturity level is found here

predator_maturity_max	If there are a mixture of maturity levels, then the
	maximum maturity level is found here
predator_length_value_cm	The length of a predator in centimeters (could be either fork length or total length); only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_min_cm	The minimum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_max_cm	The maximum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_value_g	The weight of a predator in grams; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_min_g	The minimum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_max_g	The maximum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_subsample_id	A unique number that is generated and assigned to predator samples if a source reports the diets of individual predators with no unique identifiers; values are assigned for each source starting from 1 and increasing by a value of 1 each time (e.g., 1,2,3); if unique subsample_ids are not required then the default value is 0
predator_sex	Either 'male', 'female' or 'unspecified'
hatchery_wild	Either 'hatchery', 'wild' or 'unspecified'
predator_replicates	The total number of predator replicates per sample
predator_notes	Any additional comments on the predator

gear_type_predator_id1	This id number corresponds with the
gear_type_predator_tar	gear_type_predator_id from the 'gear_type_predator' csv
	file
goor type produter id?	This id number corresponds with the
gear_type_predator_id2	1
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 2 types of
	gear used to sample predators
gear_type_predator_id3	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 3 types of
	gear used to sample predators
gear_type_predator_id4	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 4 types of
	gear used to sample predators
gear_type_predator_id5	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 5 types of
	gear used to sample predators
biological_parameter	The predator biological parameter reported in the source
	(e.g., total length, fork length, body weight)
predator_bio_notes	Any additional comments on the predator biological
	parameters
value	The biological parameter value
mean	The biological parameter mean
error	The error associated with the biological parameter mean
min	If there are a range of values for the biological parameter
	this attribute represents the minimum value
max	If there are a range of values for the biological parameter
	this attribute represents the maximum value
units	The units associated with the biological parameter; units
	are fully spelled and plural (e.g., centimeters instead of
	centimeter)
	,

6) prey_biological_data.csv

Column	Explanation
prey_id	A unique number that is generated and assigned to each
	prey sample
predator_id	A unique number that is generated and assigned to each
	predator sample
source_id	This number corresponds with the source_id from the
	'sources.csv' file

year_min	YYYY; if there is just one value for the year then it is found in this attribute; if there are a range of values for the year then the minimum value is found in this attribute
year_max	YYYY; if there are a range of values for the year then the maximum value is entered into this attribute
warm_cool_years	Either 'warm', 'cool' or NA; this attribute will only have a value if the samples are explicitly reported as being from a warm versus cool year(s) and can only be uniquely identified this way
odd_even_years	Either 'odd, 'even' or NA; this attribute will only have a value if the samples are explicitly reported as being from an odd versus even year(s) and can only be uniquely identified this way
season_min	Either 'spring', 'summer', 'autumn', or 'winter'; if there is just one value for the season then it is entered into this attribute; If there are a range of values for the season then the minimum value is entered into this attribute; this attribute will only have a value if there is no value for the month/date and the source explicitly defines the temporal sampling period by season
season_max	Either 'spring', 'summer', 'autumn', or 'winter'; if there are a range of values for the season then the maximum value is entered into this attribute; this attribute will only have a value if there is no value for the month/date and the source explicitly defines the temporal sampling period by season
month_min	Month names are completely spelled out with the first letter capitalized; if there is just one value for the month then it is entered into this attribute; If there are a range of values for the month then the minimum value is found in this attribute
month_max	Month names are completely spelled out with the first letter capitalized; if there are a range of values for the month then the maximum value is found in this attribute
date_min	Expressed using year, month, and day; if there is just one value for the date then it is entered into this attribute; if there are a range of values for the date then the minimum value is found in this attribute
date_max	Expressed using year, month, and day; if there are a range of values for the date then the maximum value is found in this attribute
time_min	HH:MM:SS; if there is just one value for the time then it is found in this attribute; if there are a range of values for the time then the minimum value is found in this attribute
time_max	HH:MM:SS; if there are a range of values for the time then the maximum value is found in this attribute

1.4	If the are in instance and are found in the fact that it is the first than it is the first th
lat_min	If there is just one value for the latitude then it is found in
	this attribute; if there are a range of values for the latitude
	then the minimum value is found in this attribute; values
.	are in decimal degrees format
lat_max	If there are a range of values for the latitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
lon_min	If there is just one value for the longitude then it is entered
	into this attribute; if there are a range of values for the
	longitude then the minimum value is entered into this
	attribute; values are in decimal degrees format
lon_max	If there are a range of values for the longitude then the
	maximum value is found in this attribute; values are in
	decimal degrees format
predator_lowest_taxonomic_level	The lowest taxonomic level reported in the source; if a
	source reports to the species level then this attribute
	includes both the genus and species names (e.g.,
	Oncorhynchus nerka); only scientific names are reported,
	not common names
predator_life_stage	Either 'juvenile', 'adult' or NA
predator_life_stage_min	If there are a mixture of juveniles and adults, then
	'juvenile' is entered here
predator_life_stage_max	If there are a mixture of juveniles and adults, then 'adult'
	is entered here
predator_freshwater_age	An integer to indicate the number of years spent living in
	freshwater
predator_freshwater_age_min	If there are a mixture of freshwater ages, then this attribute
	represents the minimum age; an integer to indicate the
	number of years spent living in freshwater
predator_freshwater_age_max	If there are a mixture of freshwater ages, then this attribute
	represents the maximum age; an integer to indicate the
	number of years spent living in freshwater
predator_ocean_age	An integer to indicate the number of years spent living in
6	the ocean
predator_ocean_age_min	If there are a mixture of ocean ages, then this attribute
	represents the minimum age; an integer to indicate the
	number of years spent living in the ocean
predator_ocean_age_max	If there are a mixture of ocean ages, then this attribute
1	represents the maximum age; an integer to indicate the
	number of years spent living in the ocean
predator_maturity	Either 'juvenile', 'immature', 'maturing' 'mature', 'kelt'
product_matery	(for steelhead), or NA
predator_maturity_min	If there are a mixture of maturity levels, then the minimum
producti_maturity_mm	maturity level is found here
	maturity icver is round note

predator_maturity_max	If there are a mixture of maturity levels, then the
	maximum maturity level is found here
predator_length_value_cm	The length of a predator in centimeters (could be either fork length or total length); only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_min_cm	The minimum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_length_max_cm	The maximum length of a predator in centimeters (could be either fork length or total length) if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_value_g	The weight of a predator in grams; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_min_g	The minimum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_weight_max_g	The maximum weight of a predator in grams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of diet data from a source
predator_subsample_id	A unique number that is generated and assigned to predator samples if a source reports the diets of individual predators with no unique identifiers; values are assigned for each source starting from 1 and increasing by a value of 1 each time (e.g., 1,2,3); if unique subsample_ids are not required then the default value is 0
predator_sex	Either 'male', 'female' or 'unspecified'
hatchery_wild	Either 'hatchery', 'wild' or 'unspecified'
predator_replicates	The total number of predator replicates per sample
predator_notes	Any additional comments on the predator

gear_type_predator_id1	This id number corresponds with the
gom_oypo_producer_rer	gear_type_predator_id from the 'gear_type_predator' csv
	file
gear_type_predator_id2	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 2 types of
	gear used to sample predators
gear_type_predator_id3	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 3 types of
	gear used to sample predators
gear_type_predator_id4	This id number corresponds with the
	gear_type_predator_id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 4 types of
coon type produce id5	gear used to sample predators
gear_type_predator_id5	This id number corresponds with the gear_type_predator id from the 'gear_type_predator' csv
	file; this attribute is required if there are at least 5 types of
	gear used to sample predators
prey_lowest_taxonomic_level	The lowest taxonomic level reported in the source; if a
prey_rewest_taxonomie_rever	source reports to the species level then this attribute
	includes both the genus and species names (e.g., Calanus
	pacificus); in some cases the lowest taxonomic level is not
	a scientific name – like 'gelatinous' or
	'zooplankton_collective' or 'miscellaneous'
prey_kingdom	The kingdom based on the lowest taxonomic level
prey_phylum	The phylum based on the lowest taxonomic level
prey_class	The class based on the lowest taxonomic level
prey_order	The order based on the lowest taxonomic level
prey_family	The family based on the lowest taxonomic level
prey_genus	The genus based on the lowest taxonomic level
prey_species	The species based on the lowest taxonomic level
prey_life_stage	The prey life stage
prey_life_stage_min	If there are a mixture of life stages, then this attribute
	represents the minimum life stage
prey_life_stage_max	If there are a mixture of life stages, then this attribute
	represents the maximum life stage
prey_length_value_mm	The length of prey in millimeters; only reported if there is
	no other way to determine life stage, or if length or weight
	categories are the only way to uniquely identify samples
many lamath min man	of prey data from a source
prey_length_min_mm	The minimum length of prey in millimeters if there are a
	range of sizes; only reported if there is no other way to
	determine life stage, or if length or weight categories are

	the only way to uniquely identify samples of prey data from a source
prey_length_max_mm	The maximum length of prey in millimeters if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_value_mg	The weight of prey in milligrams; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_min_mg	The minimum weight of prey in milligrams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_weight_max_mg	The maximum weight of prey in milligrams if there are a range of sizes; only reported if there is no other way to determine life stage, or if length or weight categories are the only way to uniquely identify samples of prey data from a source
prey_sex	Either 'male', 'female' or 'unspecified'
prey_subsample_id	A unique number that is generated and assigned to prey samples if a source reports the biological parameters of individual prey with no unique identifiers; values are assigned for each source starting from 1 and increasing by a value of 1 each time (e.g., 1,2,3)
prey_replicates	The total number of prey replicates per sample
prey_notes	Any additional comments on the prey
gear_type_prey_id1	This id number corresponds with the gear_type_prey_id from the 'gear_type_prey' csv file; if the prey is part of a diet data sample then the id should be 1 which corresponds to the 'predator' gear type (i.e. sample came from a predator stomach)
gear_type_prey_id2	This id number corresponds with the gear_type_prey_id from the 'gear_type_prey' csv file; this attribute is required if there are at least 2 types of gear used to sample predators
gear_type_prey_id3	This id number corresponds with the gear_type_prey_id from the 'gear_type_prey' csv file; this attribute is required if there are at least 3 types of gear used to sample predators
gear_type_prey_id4	This id number corresponds with the gear_type_prey_id from the 'gear_type_prey' csv file; this attribute is

	required if there are at least 4 types of gear used to sample
	predators
gear_type_prey_id5	This id number corresponds with the gear_type_prey_id
	from the 'gear_type_prey' csv file; this attribute is
	required if there are at least 5 types of gear used to sample
	predators
biological_parameter	The prey biological parameter reported in the source (e.g.,
	body length, body weight)
prey_bio_notes	Any additional comments on the prey biological
	parameters
value	The biological parameter value
mean	The biological parameter mean
error	The error associated with the biological parameter mean
min	If there are a range of values for the biological parameter
	this attribute represents the minimum value
max	If there are a range of values for the biological parameter
	this attribute represents the maximum value
units	The units associated with the biological parameter; units
	are fully spelled and plural (e.g., centimeters instead of
	centimeter)

7) environmental_data.csv

Column	Explanation
environmental_data_id	A unique number that is generated and assigned to each
	environmental data point
source_id	This number corresponds with the source_id from the 'sources' csv file
year_min	YYYY; if there is just one value for the year then it is found in
	this attribute; if there are a range of values for the year then the
	minimum value is found in this attribute
year_max	YYYY; if there are a range of values for the year then the
	maximum value is entered into this attribute
warm_cool_years	Either 'warm', 'cool' or NA; this attribute will only have a
	value if the samples are explicitly reported as being from a
	warm versus cool year(s) and can only be uniquely identified
	this way
odd_even_years	Either 'odd, 'even' or NA; this attribute will only have a value
	if the samples are explicitly reported as being from an odd
	versus even year(s) and can only be uniquely identified this way
season_min	Either 'spring', 'summer', 'autumn', or 'winter'; if there is just
	one value for the season then it is entered into this attribute; If
	there are a range of values for the season then the minimum
	value is entered into this attribute; this attribute will only have a

	value if there is no value for the month/date and the source
	explicitly defines the temporal sampling period by season
season_max	Either 'spring', 'summer', 'autumn', or 'winter'; if there are a
	range of values for the season then the maximum value is
	entered into this attribute; this attribute will only have a value if
	there is no value for the month/date and the source explicitly
	defines the temporal sampling period by season
month_min	Month names are completely spelled out with the first letter
	capitalized; if there is just one value for the month then it is
	entered into this attribute; If there are a range of values for the
	month then the minimum value is found in this attribute
month_max	Month names are completely spelled out with the first letter
	capitalized; if there are a range of values for the month then the
	maximum value is found in this attribute
date_min	Expressed using year, month, and day; if there is just one value
_	for the date then it is entered into this attribute; if there are a
	range of values for the date then the minimum value is found in
	this attribute
date_max	Expressed using year, month, and day; if there are a range of
	values for the date then the maximum value is found in this
	attribute
time_min	HH:MM:SS; if there is just one value for the time then it is
	found in this attribute; if there are a range of values for the time
	then the minimum value is found in this attribute
time_max	HH:MM:SS; if there are a range of values for the time then the
	maximum value is found in this attribute
lat_min	If there is just one value for the latitude then it is found in this
	attribute; if there are a range of values for the latitude then the
	minimum value is found in this attribute; values are in decimal
	degrees format
lat_max	If there are a range of values for the latitude then the maximum
	value is found in this attribute; values are in decimal degrees
	format
lon_min	If there is just one value for the longitude then it is entered into
	this attribute; if there are a range of values for the longitude then
	the minimum value is entered into this attribute; values are in
	decimal degrees format
lon_max	If there are a range of values for the longitude then the
	maximum value is found in this attribute; values are in decimal
	degrees format
environmental_data_type	The environmental data type reported in the source (e.g.,
	temperature, salinity)
measurement_depth	The depth associated with the environmental parameter
	measurement; if the measurement in reported to be at the
	surface (e.g., sea surface temperature) then the measurement
	depth value is assigned to 0
	<u> </u>

depth_units	The units associated with the measurement depth; units are fully
	spelled and plural (e.g., meters instead of meter)
environmental_subsample_id	A unique number that is generated and assigned to
	environmental samples if there are no other unique identifiers;
	values are assigned for each source starting from 1 and
	increasing by a value of 1 each time (e.g., 1,2,3)
environmental_notes	Any additional comments on the environmental parameter
	measurement
value	The value of the environmental parameter
mean	The mean of the environmental parameters
error	The error associated with the environmental parameter mean
min	If there are a range of values for the environmental parameter
	this attribute represents the minimum value
max	If there are a range of values for the environmental parameter
	this attribute represents the maximum value
environmental_units	The units associated with the environmental parameter; units are
	fully spelled and plural (e.g., micrograms per liter instead of
	microgram per liter)