Pacific Arctic Stable Isotope Synthesis [Dunton]

---Metadata Contact:

Marine Science Institute, The University of Texas at Austin
Attn: Ken Dunton
Professor
Phone#: 1-361-749-6744 (voice)
Email: ken.dunton@utexas.edu

---Data Set Overview:
This dataset is a synthesis of carbon and nitrogen stable isotope data from several studies collected into a single GIS feature class. The data cover the Pacific-influenced coastal shelf ecosystem of the Arctic Ocean. Data points include isotopic ratios of del C-13 and del N-15. Additional metadata such as the names of the original data collectors are included as attributes of the feature class when available. Carbon isotope ratios are a good indicator of carbon sources of the food web because of their small enrichment steps between consecutive consumers (0-1‰) and nitrogen isotope ratios are good indicators of trophic level (TL) because of the larger enrichment step of 3-4‰ between TL.

---Data files:
StableIsotope-metadata.zip, stable_isotope_synthesis.zip

---The data definitions are:
stable_isotope_synthesis
Locations of stable isotope samples (Source: Various investigators over several decades collected the data compiled into this dataset)
FID
Internal feature number. (Source: Esri)
Sequential unique whole numbers that are automatically generated.
Shape
Feature geometry. (Source: Esri)
Coordinates defining the features.
CruiseID
Cruise identifier (Source: Various)
StationNum
Station number or unique identifier (Source: Assigned for each cruise by investigator or cruise planner)
StationNme
Station name (Source: Assigned for each cruise by investigator or cruise planner)
DataDate
Sample date (Source: Recorded for each cruise by investigator)
DataYear
Sample year (Source: Compiled from sample dates or publications)
DataTime

Sample times (Source: Recorded for each cruise by investigator)

TimeZone

Time zone (Source: Global time zones)

UTCOffset

Offset in hours from Coordinated Universal Time (UTC) (Source: International Telecommunications Union Recommendation (ITU-R TF.460-6))

Latitude

Latitude (Source: World Geodetic System)

Longitude

Longitude (Source: World Geodetic System)

Depth

Depth that samples were taken, in meters. Depths are positive in the downward direction. Null values are indicated by -999.99. (Source: Depths were recorded by sensors on each cruise)

WaterDepth

Water depth to sea floor at the current location, in meters. Depths are positive in the downward direction. Null values are indicated by -999.99. (Source: Depths were recorded by sensors on each cruise)

delC13

del C-13 isotopic ratio, per mille. Null values are indicated by -999.99. Method of measurement is indicated in the Method attribute when available. (Source: Data collector)

delN15

del N-15 isotopic ratio, per mille. Null values are indicated by -999.99. Method of measurement is indicated in the Method attribute when available. (Source: Data collector)

TSN

Taxonomic serial number, a unique identifier for taxa. Missing or "not applicable" values are indicated by -999. (Source: Integrated Taxonomic Information System)

Source

Original source of the data

Org

Affiliation of the group who originally collected the data

Method

Method of isotopic ratio sample collection and measurement. (Source: Data collector)

Citation

Reference citations from data in this dataset. (Source: Originator)

SampleType

Broad category for the type of sample, e.g., benthic. (Source: Originator)

Taxon

Entity sampled (Source: Data collector)

FeedGuild

Feeding Guild by Macdonald, et. al., 2010. Key: PEL: Pelagic EP: Epibenthic SR: Surface SS: Sub-surface He: Herbivore De: Detritovore Su: Suspension feeder Pr: Predator mac: macrofauna mei: meiofauna zoo: zooplankton (Source: Macdonald,

TA, BJ Burd, VI Macdonald, A. van Roodsellar. 2010. Taxonomic and feeding guild classification for the marine benthic macroinvertebrates of the Strait of Georgia, British Columbia. Canadian Technical Report of Fisheries and Aquatic Sciences 2874. Fisheries and Oceans Canada.)