TITLE: BEST_HLY0802_Plankton_Isotopes

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DESCRIPTION:
This file contains data for stable carbon and nitrogen isotope values ($\delta^{13}C$ and $\delta^{15}N$) of pelagic invertebrates from plankton net tows (150 µm mesh ring net) made during HLY0802. For details on expeditions as well as station locations, check the cruise reports available at http://www.eol.ucar.edu/projects/best/.
The data are in a standard excel format spreadsheet.

Pelagic invertebrates were collected with a 150 µm mesh ring net, hauled vertically from 10 m above the bottom or a maximum of 100 m water depth to the surface. Members of common Copepoda and Euphausiacea taxa were sorted from each catch. Multiple whole individuals (3-10 for Copepoda, 1-3 for Euphausiacea) were used for individual samples to obtain sufficient mass. Three replicate samples per taxon and station were taken if sufficient material was available, and all samples frozen at -20°C. Frozen samples were later dried at 60°C for 24 h. All samples were treated with chloroform:methanol (2:1) to remove lipids. After drying again at 60°C for 24 h, samples were then measured for carbon and nitrogen isotopic composition at the UAF Stable Isotope Facility. Stable isotope ratios are reported in conventional δ notation as ‰ deviation from the international standards PDB (carbon) and air (nitrogen) according to the following equation:

$$\delta X = [(R_{sample}/R_{standard}) - 1] \bullet 1000$$

where X is ^{13}C or ^{15}N of the sample and R is the corresponding ratio $^{13}C/^{12}C$ or $^{15}N/^{14}N$.

Description of columns

Cruise: Indicates the cruise during which samples were taken (HLY0802 = HLY: ice breaker USCGC Healy, 08: year 2008, 02: second leg).

Station: Contains the station name also referred to in the cruise catalogue.

Date: Calendar date when sample was taken (day, month, year)

Lat: Latitude of sample location (degrees north, minutes with decimals)

Long: Longitude of sample location (degrees west, minutes with decimals)

Species: Species name of sample. Species of *Calanus glacialis/marshallae* refers to a potential species mix of both species in the region.

Class/Order: Refers to the class or order classification of the taxa.

Replicate: Number of replicate sample for each taxon at any given station.

δ^{15}N: Stable carbon isotope ratio (in ‰).

δ^{13}C: Stable carbon isotope ratio (in ‰).