

---TITLE: Lomas_HPLC_pigments_watercolumn_subm_December 2011.xls

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-Contact information for data questions – same as above

---FUNDING SOURCE AND GRANT NUMBER:

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---DATA SET OVERVIEW:

-These data were collected from process stations and other stations on the following BEST cruises: HLY0802, HLY0803, HLY0902, KN195-10, TN249 and TN250. Data presented are volumetric concentrations ($\mu\text{mol/L}$) of suspended pigment concentrations, determined by HPLC. All samples were collected on the eastern Bering Sea shelf from 55-63°N and 164-180°W during spring and summer. At process stations, four (4) depths were sampled representing roughly the 100%, 30%, 9%, and 1.5% light depths.

---INSTRUMENT DESCRIPTION:

Samples were processed on Agilent 1100 HPLC system as described in Lomas et al. (2010).

---DATA COLLECTION and PROCESSING:

-All samples were directly collected from the Niskin bottles, and filtered immediately onto 47mm Ahlstrom 151 glass fiber filters (equivalent to Whatman GF/F filters) as described in the above references. After filtering, samples were folded in half, wrapped in precombusted aluminum foil and stored at -80°C until returned to the home institution for processing.

-Description of quality control procedures. Duplicate analyses were run (roughly 10% of the total number of samples) with the average difference found to always be <10%, and often better depending upon the absolute concentration.

---DATA FORMAT:

-Data are reported as a comma delimited ASCII text file. Reported data are the averages where replicate analyses were made. File naming convention is by PI's last name, parameters reported (ie., Phytoplankton) and date submitted.

-Column header information for dataset.

Cruise	Cruise name
Station_No.	Station Number within each cruise
Station_Name	Station Name for each Station Number

Cast_#	Consecutive CTD cast number within each cruise
Date/time (UTC)	YYYYMMDDhhmmss
Declat (oN)	Decimal degree latitude
Declong (oW)	Decimal degree longitude
Nominal_Depth (m)	nominal depth
Niskin	niskin number sample collected from
[TChla]	Total chlorophyll a (ug/L)
[TChlb]	Total Chlorophyll b (ug/L)
[TChlc]	Total Chlorophyll c (ug/L)
[Caro]	Alpha+beta carotene (ug/L)
[But fuco]	19'-butanoyloxyfucoxanthin (ug/L)
[Hex fuco]	19'-hexanoyloxyfucoxanthin (ug/L)
[Allo]	Alloxanthin (ug/L)
[Diad]	Diadinoxanthin (ug/L)
[Diat]	Diatinoxanthin (ug/L)
[Fuco]	Fucoxanthin (ug/L)
[Perid]	Peridinin (ug/L)
[Zea]	Zeaxanthin (ug/L)
[Chla]	Mono-vinyl Chlorophyll a (ug/L)
[DVChla]	Di-vinyl Chlorophyll a (ug/L)
[Chlidea]	Chlorophyllide a (ug/L)
[Chlb]	Mono-vinyl Chlorophyll b (ug/L)
[DVChlb]	Di-vinyl Chlorophyll b (ug/L)
[Chlc12]	Chlorophyll C1+C2 (ug/L)
[Chlc3]	Chlorophyll C3 (ug/L)
[Lut]	Lutein (ug/L)
[Neo]	Neoxanthin (ug/L)
[Viola]	Violaxanthin (ug/L)
[Phytin a]	Phaeophytin a (ug/L)
[Phide a]	Phaeophorbide a (ug/L)
[Pras]	Prasinoxanthin (ug/L)

-All missing data are reported as "-9.99". NOTE: as this more analyses are done this dataset will be updated and recorded below.

-Data version 1.0, December 2011

---DATA REMARKS:

-All data reported are free of known errors, whether in sample collection or sample analysis. Any data where there is a question that would compromise the data quality have been omitted and listed as missing data.

---REFERENCES:

Lomas, M.W., Burke, A., Lomas, D., Shen, C., Bell, D., Dyrman, S.T., Ammerman, J.W., 2010. Sargasso Sea phosphorus biogeochemistry: an important role for dissolved organic phosphorus (DOP). *Biogeosciences* 7, 695-710.