TITLE:        Readme File-**"PacMARS_Sediment Chlorophyll 1995-2012 README".doc**

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ORIGINAL AWARD TITLE: Pacific Marine Arctic Regional Synthesis (PacMARS)

DATA ARCHIVE: PacMARS EOL data archive http://pacmars.eol.ucar.edu

DATASET OVERVIEW:
This dataset contains summary measurements of surface sediment collected at each station identified by Station Number (#), Station name (Stn. Name), Date (mm/dd/yy), latitude (°N), longitude (°W), and station depth (m). Surface sediment chlorophyll (chl a) content is scaled up to mg Chl a/m2.

Note that some of these data are available in combination with other environmental parameters at the following data archive; SBI Phase 1 (retrospective) and Phase 2 (field), http://www.eol.ucar.edu/projects/sbi/; BEST, https://www.eol.ucar.edu/projects/best/; COMIDA CAB, http://www.comidacab.org/; and COMIDA Hanna Shoal (HS), http://www.comidacab.org/hannashoal/index.html (in progress).

INSTRUMENT DESCRIPTION:
A van Veen grab (0.1 m$^2$ sediment grab), weighted with 32 kg of lead was used in the collection of surface sediment samples and a subsample for the parameter was made for a top door on the grab once back on deck.

DATA COLLECTION AND PROCESSING
Sediment was collected from the first van Veen grab used for collection of sediment samples. Replicate surface samples (1 cm) were collected with a cut-off 10 cc syringe and subsequently processed for chlorophyll a content at each station. Sediment chlorophyll-a samples were extracted and processed shipboard using a Turner Designs AU-20 fluorometer (Welschmeyer non-acidification method) following a 12-hour in the dark incubation with 90% acetone at 4°C method (see Cooper et al. 2012, 2013 for further details). On one cruise (SWL12) we froze the sediment subsample for post-cruise extraction and readings as above at the Chesapeake Biological Laboratory.

DATA FORMAT
Data File Structure:
File Names (Formats): **PacMARS_Sediment Chlorophyll 1984-2012.xlsx**

Data Parameters:

CruiseID-Cruise title (e.g., HX177: ship=Alpha Helix, ID=177; HLY0601 (HLY: "Healy", USCG

Icebreaker WAGB-20; 06=2006 and 01 is the first leg on the Healy that season; PSea=USCGC Polar Sea; PStar=USCGC Polar Star; SWL=CCGS (Canadian Coast Guard Ship, SWL=Sir Wilfrid Laurier); COMIDA=Chukchi Sea Monitoring in Drilling Area program on HX in 2009 and RV Moana Wave in 2010; RUSALCA=Russian-American Long-term Census in the Arctic project on RV Okean (1993) and RV Khromov (2004, 2009, 2012)
StationNum= equals station number from beginning to end of cruise
StationNme=Station Name – based on transect name, see cruise reports
DataDate=yyyymoday
DataYear=year of collection
DataTime=hour and minutes of collection
TimeZone=UTC
UTCOffset= offset (hours) from UTC
Latitude=in decimal degrees
Longitude=in decimal degrees
Depth (m)
Latitude=in decimal degrees
Longitude=in decimal degrees
SedChlmg-Sediment chlorophyll content in surface sediments (mg/m2)

Data Version Number and Date: Version 1, 05/12/14

Software Compatibility: This dataset will be posted in Microsoft Excel 14.3.6 for MAC.

REFERENCES

Cooper, L.W., J.M. Grebmeier, I.L. Larsen, V.G. Egorov, C. Theodorakis, H.P. Kelly, and J.R. Lovvorn, 2002. Seasonal variation in water column processes and sedimentation of organic materials in the St. Lawrence Island polynya region, Bering Sea. Mar. Ecol. Prog. Ser. 226, 13–26.

Cooper, L.W, M.G. Sexson, J.M. Grebmeier, R. Gradinger, C.W. Mordy, J.R. Lovvorn. 2013. Linkages Between Sea Ice Coverage, Pelagic-Benthic Coupling and the Distribution of Spectacled Eiders: Observations in March 2008, 2009 and 2010 from the Northern Bering Sea, Deep Sea Research Part II, Topical Studies in Oceanography, 94, 31-43.