

Dataset Description

Dataset Name*	ICE CAMPS
Dataset Description*	Data Collected During the 2017 ICE CAMPS (Ice Covered Ecosystem-Cambridge Bay Process Study) Field Campaign
Project Name	ICE CAMPS 2017
Dataset Keywords*	FTIR, Nutrients, PAR, POC, Chl a, Lugol Acid Taxonomy, Physical Site Measurements
Dataset keyword Vocabulary	ICE CAMPS 2017 Data Catalogue
Dataset keyword Vocabulary URL	
Dataset Status*	Complete
Dataset Version*	1.0
Dataset Research Area*	Finlayson Islands (~69°00.033'N, 105°48.967'W), in the Kitikmeot Sea, Nunavut, Canada
Dataset Maintenance and Update Frequency*	None Planned
Resource Type*	Dataset
Dataset Collection Start Date*	2017-04-28
Dataset Collection End Date	2017-05-12
Date Last Revision*	2020-02-02
Metadata Creation Date*	2020-02-02
Dataset DOI	In process
Dataset Citation	<p>Cite dataset as: Pogorzelec, Nicole, 2017, "FITR autoecological analysis of bottom-ice diatom taxa.xlsx", Ice-Camps, DOI, Canadian Watershed Information Network, V1</p> <p>Cite project as: Mundy, C.J., Pogorzelec, Nicole, Dalman, Laura, 2016, "Ice Camps", DOI, Canadian Watershed Information Network, V1</p>

Dataset Contributors

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Deployment Information

Platform Name	Platform Type	Start Date	End Date	Deployment	Coordinated (Dataset) Platform Deployment
	Can be a vessel, mooring, satellite, aircraft, UV etc.	YYYY-MM-DD Date ship left port, date mooring deployed etc.	YYYY-MM-DD Date ship returned to port, date mooring recovered	Usually Cruise ID or Date instrument deployed	Name of additional deployment platform for this dataset (e.g. Mooring ID)

Site Information

Site ID*	Site Description	Site Latitude*	Site Longitude*	Site Type*	Site Location Country
IC1	Site 1	68 ° 59.600'N	105 ° 50.590'W	First-year Landfast Sea Ice	Canada
IC2	Site 2	69 ° 00.033'N	105 ° 48.967'W	First-year Landfast Sea Ice	Canada
IC3	Site 3	69 ° 00.583'N	105 ° 46.867'W	First-year Landfast Sea Ice	Canada
IC4	Site 4	69 ° 01.320'N	105 ° 44.040'W	First-year Landfast Sea Ice	Canada

Collection and Analysis Procedures

Sample Collection Method Name*	Ice Core Filtration
Method Link	
Method Summary	
Analytical Method Name*	Water Filtration

Analytical Method Link	
Analytical Method Summary	
Analytical Laboratory Name	

Processing Description

Variable*	Variable method speciation	Variable sample fraction*
Fourier Transform Infrared Spectroscopy (FTIR)	Biomolecular Content (i.e. Lipid and Protein)	Filtered Diatoms Cells
Lugol Acid Taxa	Taxonomy of Ice Algal Community	Algal Cells
Nutrients	In-Ice Nutrients (i.e. Nitrate+Nitrite, Phosphate, Siliceous Acid)	Filtered Sea Ice
Particulate Organic Carbon (POC)	In-Ice Organic Carbon	Filtered Particulate
Chlorophyll <i>a</i> (Chl <i>a</i>)	In-Ice Pigment (i.e. Chlorophyll <i>a</i>)	Filtered Particulate
Photosynthetic Active Radiation (PAR)	Solar Radiation (i.e. Downwelling, Upwelling, Under-Ice Transmission, and Albedo)	400-700nm
Physical Site Measurements	Surface Snow Cover and Ice Depth	Thickness (cm)

CanWIN Data Cleaning Notes

Dataset not cleaned by CanWIN

Variable Detection Limits

Variable Name	Units	Detection Limit Value and units
Name of the variable	Units associated with the variable	The detection limit value and units for the variable measured

Table 1. CanWIN & User defined Detection Limit Codes

CanWIN Description	User Code	Method
Above detection limit		
Below detection limit		

Instruments

CanWIN Instrument Name*	<u>Fourier Transform Infrared Spectrometer (Agilent)</u>
Common Instrument Description	FTIR
Activity Collection Type*	Sample-Routine
Variables Measured with units*	Absorption Values (Relative Quantities)
Additional Comments	Biomolecular Content

CanWIN Instrument Name*	<u>Elemental Analyzer (Elementar Vario Micro Cube)</u>
Common Instrument Description	
Activity Collection Type*	Sample-Routine
Variables Measured with units*	mg m ⁻²
Additional Comments	Particulate Organic Carbon (POC)

CanWIN Instrument Name*	<u>Fluorometer (Turner Designs Trilogy)</u>
Common Instrument Description	
Activity Collection Type*	Sample-Routine
Variables Measured with units*	mg m ⁻²
Additional Comments	Chlorophyll <i>a</i> (Chl <i>a</i>)

Instrument/Result Data Parameters*

Define the column headings in your dataset, and supply a human readable name if the header name is a shortform

Header	Description	Units	CanWIN Variable Name	Result Value Type	Result Value Qualifier	Formula or script applied	Statistic Applied
<i>Nitzschia frigida</i>	<i>Nitzschia frigida</i> Biomolecular Content	Relative Absorption Units	CH2+CH3 (Lipid), Amide I (Protein) and Ratio (Lipid:Protein)	Calculated		MATLAB Calculation	Average per Cell
<i>Attheya</i> spp.	<i>Attheya</i> spp. Biomolecular Content	Relative Absorption Units	CH2+CH3 (Lipid), Amide I (Protein) and Ratio (Lipid:Protein)	Calculated		MATLAB Calculation	Average per Cell
% Ice Algae Community	Percent Ice Algae Community	Percent	Centric, Pennate, Flagellate, Dinoflagellate, Ciliate and Unknown	Numerated			Percentage
% Diatom Population	Percent Diatom Population	Percent	Centric, Pennate, Dead Centric, and Dead Pennate	Numerated			Percentage
% FTIR Targeted Cells	Percent FTIR Targeted Cells	Percent	Centric, Pennate, <i>Attheya</i> spp.,	Numerated			Percentage

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			and <i>Nitzschia frigida</i>				
Nutrients	In-Nutrients	psu, $\mu\text{mol/L}$	Salinity, Phosphate, NO ₂ +NO ₃ and Siliceous Acid	Actual			Raw
POC & Chl <i>a</i>	Particulate Organic Carbon and Chlorophyll <i>a</i>	mg m^{-2}	POC, Chl <i>a</i> , and POC:Chl <i>a</i>	Actual			Raw
PAR	Photosynthetic Active Radiation	nm	PAR (400-700 nm), Albedo, % Transmission	Actual			Raw
Snow & Ice	Physical Measurements: Snow and Sea Ice Thickness	cm	Snow and Sea Ice	Actual			Raw

Table 2. Result Value Qualifier

CanWIN Short Code	Definition	User Code
§	Incorrect sample container	
EFAI	Equipment failure, sample lost	
FEQ	Field Equipment Questionable	
FFB	Failed. Field blank not acceptable	
FFD	Field Duplicate, failed	
FFS	Failed. Field spike not acceptable	
H	Holding time exceeded	

ISP	Improper Sample Preservation	
ITNA	Incubation time not attained	
ITNM	Incubation temperature not maintained	
JCW	Sample Container Damaged, sample lost	
NC	Not Collected	
ND	Not detected	
NS	Sample collected but not submitted	

Table 3. Statistics applied options

Statistics Applied	Description
30DADMean	Thirty day average daily mean
7DADM	Seven Day Average Daily Maximum
7DADMean	Seven day average daily mean
7DADMin	Seven day average daily minimum
Coefficient of variation	
Daily Geometric Mean	Calculating a geometric mean (a daily period) provides a number that is more representative of the median and helps reduce the effect of a few extreme values.
Daily Maximum	The largest value of a set, each period of a day cycle
Daily Minimum	The smallest value of a set, each period of a day cycle
Hourly Maximum	The largest value of a set, each period of a hour cycle
Hourly Minimum	The smallest value of a set, each period of a hour cycle
MatLab script	Provide MatLab script or link to script
Mean	mean is the sum of all the numbers in the set divided by the amount of numbers in the set
Median	median is the middle point of a number set, in which half the numbers are above the median and half are below.
None	None

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R script	Provide R script or link to script
Standard Deviation	This describes the spread of values in the sample
Standard Error	This is the standard deviation of the sample mean, \bar{x} , and describes its accuracy as an estimate of the population mean, μ .

Terms of Use

License Type*	Default: Open
Dataset License *	Default: CC BY-NC-SA 4.0
Terms of Use	Terms of Use for data. Restrictions and legal prerequisites for using the data set after access is granted. Default TOU is CanWIN's. e.g. This data is governed by CanWIN's data statement (https://lwbins.cc.umanitoba.ca/wp-content/uploads/2019/10/CanWIN_DataPolicy_Nov2019.pdf)

Terms of Access

Access Level*	Public
Allowed Users	
Embargo Date	
Embargo Time	
Embargo Time zone	
Access Constraints	