

Historic of sea ice concentration at the ice camp

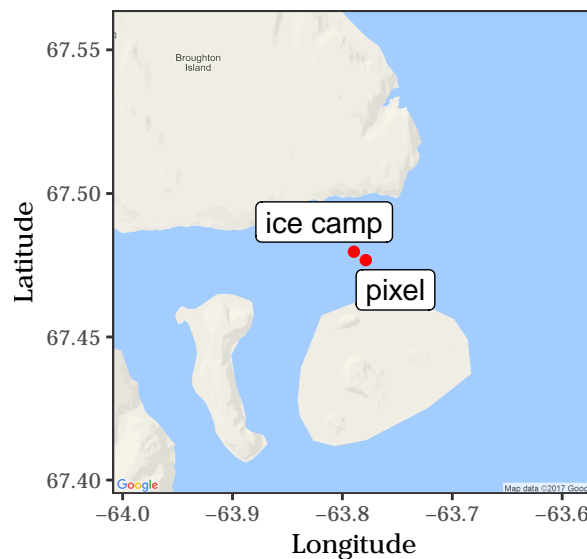
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This document presents an overview of the methodology used to extract the historic of sea ice concentration at the Qikiqtarjuaq ice camp (project Green Edge).

Data

Sea ice concentration has been extracted from AMSR2 radiometer on a 3.125 km grid. The historic of sea ice concentration was extracted between May 1st and July 31th of each year. Sea ice concentration was extracted from the closest pixel using the Euclidean distance between the ice camp and the center of each pixel.

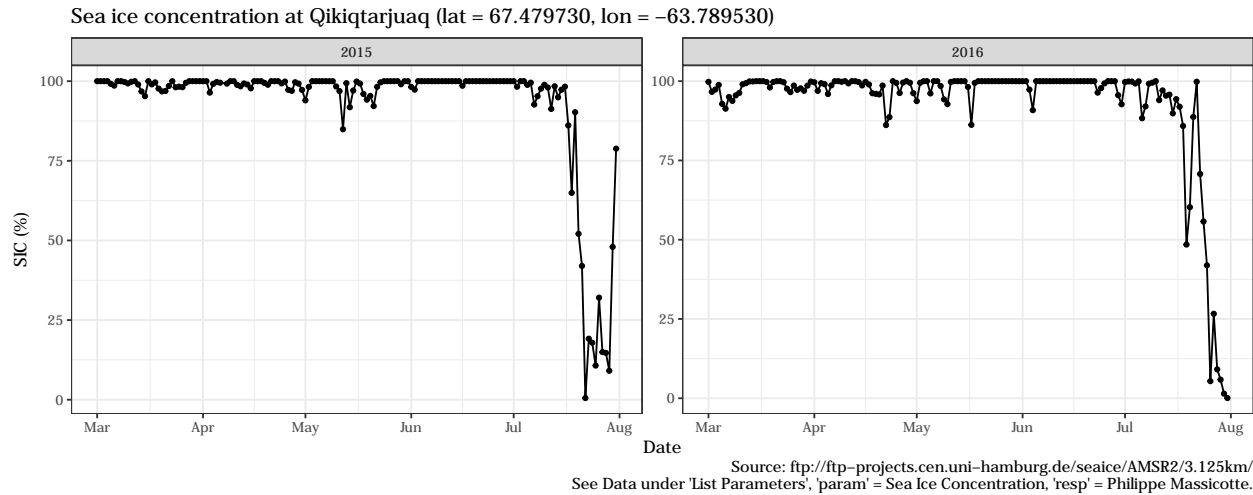


The distance between the ice camp and the center of the pixel is 566.7368272 meters. The data has been divided into two files, one for each year. The data is organized as follow:

sic	date	latitude	longitude
100.00	2015-03-01	67.47973	-63.78953
100.00	2015-03-02	67.47973	-63.78953
100.00	2015-03-03	67.47973	-63.78953
100.00	2015-03-04	67.47973	-63.78953
99.15	2015-03-05	67.47973	-63.78953
98.61	2015-03-06	67.47973	-63.78953

Visualization

This graphic presents the SIC for both 2015 and 2016.



Other sources of data

The infamous “ice line” is also available on our glider’s webpage. For every day since the beginning of March 2016, you will find the “arctic_line_yyyyddd.kmz” file there, however these data cover the entire arctic area so some modifications might be necessary:

<http://gliders.takuvik.ulaval.ca/kmz/archive/>

Another source of sea ice line data is the NOAA website. Data @NatIce are available in kmz, text and shapefiles format. These files are GIS so they are meant to be read by a GIS software:

http://www.natice.noaa.gov/products/daily_products.html

How to cite the data

If you use this dataset please cite University of Hamburg and the following article:

Beitsch, A.; Kaleschke, L.; Kern, S. Investigating High-Resolution AMSR2 Sea Ice Concentrations during the February 2013 Fracture Event in the Beaufort Sea. *Remote Sens.* 2014, 6, 3841-3856, doi:10.3390/rs6053841

Paper Open Access available online: <http://www.mdpi.com/2072-4292/6/5/3841>

For citations of the data itself you may use:

Kaleschke, L. and X. Tian-Kunze (2016), “AMSR2 ASI 3.125 km Sea Ice Concentration Data, V0.1”, Institute of Oceanography, University of Hamburg, Germany, digital media (<ftp-projects.zmaw.de/seaice/>).

Detailed information

Detailed information can be found in the following official README file:

- <ftp://ftp-projects.cen.uni-hamburg.de/seaice/AMSR2/README.txt>