Historic of sea ice concentration

Philippe Massicotte

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This document presents an overview of the methodology used to extract the historic of sea ice concentration of the stations visited by the Amundsen in 2016 (project Green Edge).

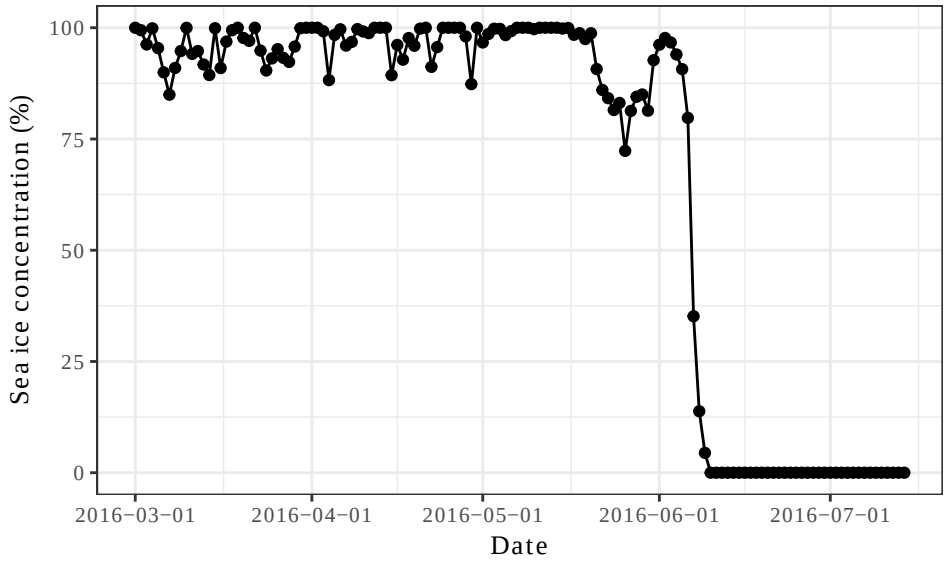
Data

Sea ice concentration has been extracted from AMSR2 radiometer on a 3.125 km grid. At each Amundsen station, the historic of sea ice concentration was extracted between 2016-03-01 and 2016-07-14. Sea ice concentration was extracted from the closest pixel using the Euclidean distance between ship position and the center of each pixel.

File name is *ice history data.csv*. It can be opened in Excel although you will have to select the first column and click Data – Convert to choose the separator as coma. You can filter the data per station –which will give you the changes of sic (sea ice coverage) over time (ice_date being the date of sic estimation) or by ice_date to see the status of sea ice coverage at all stations for a given day.

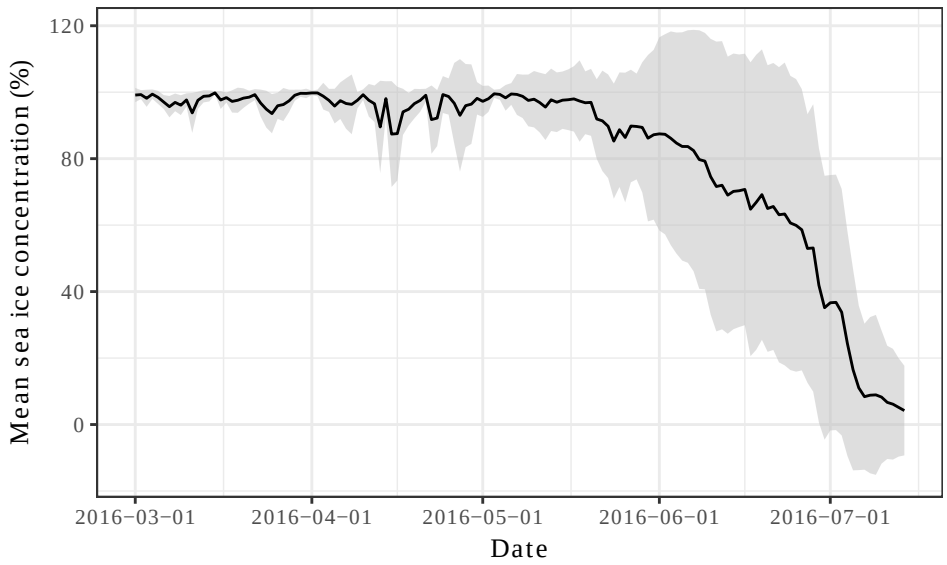
Example

This is an example for station **G104**.



Average sea ice concentration

This is the averaged (± S.D.) sea ice concentration between 2016-03-01 and 2016-07-14



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/), [BEGIN DAY/MONTH/YEAR - END DAY/MONTH/YEAR].

Detailed information

Detailed information can be found in the following official README file: ftp://ftp-projects.zmaw.de/seaice/AMSR2/README.txt