

Dataset of *E. huxleyi* blooms: spatio-temporal distribution and their impact on high-latitude marine environments (1998-2016)



Regions description

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For optimizing the dataset's coverage (mostly for reducing the number of pixels with no data and total hard drive space) it's divided in four spatial regions, so the user can download the data for locations of interest only instead of all data. The choice of 4 regions in this work can be explained by several reasons. These regions include all seas where coccolithophore blooms usually occur in subpolar and polar regions of the Northern Hemisphere (North, Norwegian, Greenland, Barents, Bering and Labrador seas). The fact that the stably reported blooms occurring in the northern parts of the Atlantic Ocean haven't been included in our dataset can be explained by some technical restrictions: the hydrooptical model employed for obtaining the coccolith concentration values was based on the data from high-latitude areas, and thus should be at first validated for different marine environments, such as open parts of the Atlantic Ocean.

Regions' spatial characteristics are described with the table and figure below:

Regionnumber	Extent coordinates (NSIDC EASE-Grid North, EPSG:3973)		Region Area, km ²	Contained waters
1	Xmin	-300000.00	7 819 600	The Barents, Norwegian, North seas and the Northern part of the Greenland Sea
	Ymin	-4260000.00		
	Xmax	1960000.00		
	Ymax	-800000.00		
2	Xmin	-1000000.00	476 000	The Southern part of the Greenland sea, the Western part of the Norwegian Sea
	Ymin	-2720000.00		
	Xmax	-300000.00		
	Ymax	-2040000.00		
3	Xmin	-4180000.00	1 081 200	The Southern part of Labrador Sea, North Atlantic Ocean part to the south of the Labrador Sea
	Ymin	-3500000.00		
	Xmax	-3160000.00		
	Ymax	-2440000.00		
4	Xmin	-1400000.00	1 680 000	The Bering Sea
	Ymin	2500000.00		
	Xmax	0.00		
	Ymax	3700000.00		

