

9. August 2012
66/12

Pressdienst

Arctic 2012: New record melt expected in September

Ice researchers from the KlimaCampus, University of Hamburg, predicted the lowest ever measured ice coverage for September. With 4.1 million km², the area would even significantly fall below the record minus of 2007 (4.3 million km²). Last year, Lars Kaleschke and his team were exactly right with their prognosis.

The Arctic as an "early warning system" of climate change makes itself significantly noticeable again: Sea ice expert Lars Kaleschke from the KlimaCampus, University of Hamburg, expects an area of just 4.1 million km² in September, at the time of the annual minimum ice coverage in the Arctic. This would be the lowest value since the start of satellite measurements in the 1970s.

Researchers from all over the world are involved in the so-called Sea Ice Outlook every year, on the occasion of which they estimate the remaining minimum ice, using various methods. With a statistical prognosis based on current satellite data, the KlimaCampus team got this value exactly right last year – the ice surface melted to 4.6 million km².

The events of the past few months were already unusual. The Petermann glacier calved a gigantic block of ice, while the ice surface in Greenland started to thaw almost completely. At the moment, an extremely strong storm is sweeping over the Arctic, which can still influence the development in the short term: "If the storm drives the ice apart, the covered surface would appear larger again at first glance. Openings that occur in this way, could however accelerate the melting," says Kaleschke. It is also possible that due to the movement in the ice, warmer water from deeper layers rises to the top. In this way, the underside of the ice could melt faster, according to the ice researcher, and the September minimum could be even more extreme than expected.

Images for download:

[Sea ice coverage 08/2012](#), for comparison: average of the last 15 years (red line)

[Ice coverage of the Arctic 1972](#) (September minimum)

Image information:

Sea ice coverage 08/2012, for comparison: average of the years 1992-2006 (red line)

Sea ice coverage on 6 August 2012 in comparison with previous years

The red line shows the average value of the ice expansion from 1992-2006 in August

Data: Microwave sensors SSM/I and SSMIS; NASA Blue Marble

Graphics: UHH/KlimaCampus/Kaleschke

Ice coverage of the Arctic since 1972 (September minimum)

Monthly average value from 1972 to 2011 and prognosis for September 2012

The green curve shows a continuously decrease of the sea ice. Red curve: The data lead us to expect this course of the accelerated ice reduction since 2005.

Graphics: UHH/KlimaCampus/Kaleschke

Contact:

Dr. Lars Kaleschke

CliSAP Exzellenzcluster

E-Mail: lars.kaleschke@zmaw.de

KlimaCampus, University of Hamburg

Alexander Beitsch

CliSAP Exzellenzcluster

Tel.: 040-4 28 38-61 04

E-Mail: alexander.beitsch@zmaw.de

KlimaCampus, University of Hamburg

Ute Kreis

CliSAP Outreach

Grindelberg 5

Tel.: 040-4 28 38-45 23

E-Mail: ute.kreis@zmaw.de

KlimaCampus, University of Hamburg