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N-ICE2015: Multi-disciplinary study of the young sea ice system north of Svalbard from winter to summer.

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The Arctic Ocean is shifting to a new regime with a thinner and smaller sea-ice area cover.
Until now, winter sea ice extent has changed less than during summer, as the heat loss to the atmosphere during autumn and winter is large enough form an ice cover in most regions. The insulating snow cover also heavily influences the winter ice growth. Consequently, the older, thicker multi-year sea ice has been replace by a younger and thinner sea.
These large changes in the sea ice cover may have dramatic consequences for ecosystems, energy fluxes and ultimately atmospheric circulation and the Northern Hemisphere climate. To study the effects of the changing Arctic the Norwegian Polar Institute, together with national and international partners, launched from January 11 to June 24, 2015 the Norwegian Young Sea ICE cruise 2015 (N-ICE2015). N-ICE2015 was a multi-disciplinary cruise aimed at simultaneously studying the effect of the Arctic Ocean changes in the sea ice, the atmosphere, in radiation, in ecosystems. as well as water chemistry.
R/V Lance was frozen into the drift ice north of Svalbard at about N83 E25 and drifted passively southwards with the ice until she was broken loose. When she was loose, R/V Lance was brought back north to a similar starting position. While fast in the ice, she served as a living and working platform for 100 scientist and engineers from 11 countries. One aim of N-ICE2015 is to present a comprehensive data-set on the first year ice dominated system available for the scientific community describing the state and changes of the Arctic sea ice system from freezing to melt. Analyzing the data is progressing and some first results will be presented.