

# Norwegian young sea ICE cruise 2015(N-ICE2015)

## Primary objective:

To understand the effects of the new thin, first year, sea ice regime in the Arctic on energy flux, ice dynamics and the ice associated ecosystem, and local and global climate.

## Secondary objectives:

- Understand how available ocean heat is mixed upwards towards the sea ice and to what extent it influences the sea ice energy budget.
- Understand the fate of solar radiation incident on the first-year sea ice in the region and how its fate is affected by properties of the atmosphere, snow, ice, and ocean.
- Quantification of the changing mass balance of Arctic sea ice and its snow cover.
- Model the dynamics of the drifting ice.
- Understand the ice associated ecosystem and model future changes.
- Effects on local and global weather systems.

The project is made possible by a joint funding between Center for Ice, Climate and Ecosystems at the Norwegian Polar Institute, the Polar Institute and the Ministry of environment

Method: RV Lance (<http://www.npolar.no/en/about-us/lance/>) will be frozen into the drift ice at approximately N83.25 E30 in the beginning of January 2015 and passively drift with the ice probably in a southwesterly direction. The N-ICE2015 is planned to last for 6 months until the end of June 2015.

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