

NorArgo News Briefs #1



*This is the first Newsletter from NorArgo! Hopefully, there will be many more!
The aim of these news briefs is to provide updates on NorArgo activities. Please contact us if you are interested in more information or would like us to share Argo related information in a future Newsletter.*

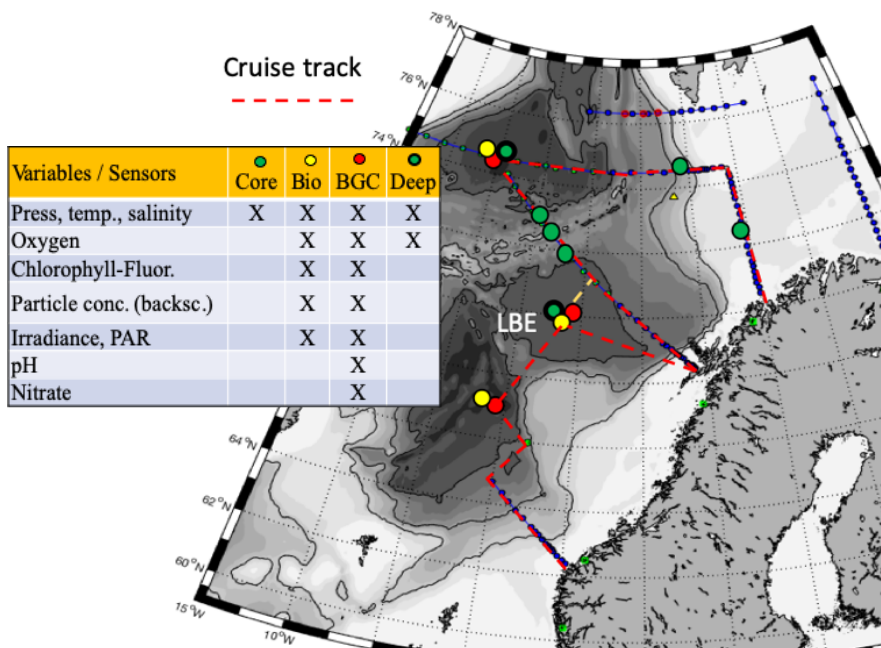
Deployments of Argo floats in 2019

During May 15 – June 4 this year 13 Argo floats were deployed in the Nordic Seas on a cruise with R/V Johan Hjort. Representatives from the Institute of Marine Research (IMR), Univ. of Bergen, and NORCE Research participated in the deployment mission. The deployed floats included 3 BGC floats, 3 bio floats, 2 deep floats and 5 core floats. The BGC-floats include CTD, dissolved oxygen, fluorometer, backscatter, nitrate, pH, and irradiance sensors, while the bio-floats include all the BGC-sensors except the pH and nitrate sensors. BGC, bio and core floats take vertical profiles down to 2000 m depth, while the deep floats, which include dissolved oxygen sensor, take profiles in the whole water column down to the bottom

This is the first time in history that BGC and deep floats are deployed in the Nordic Seas!



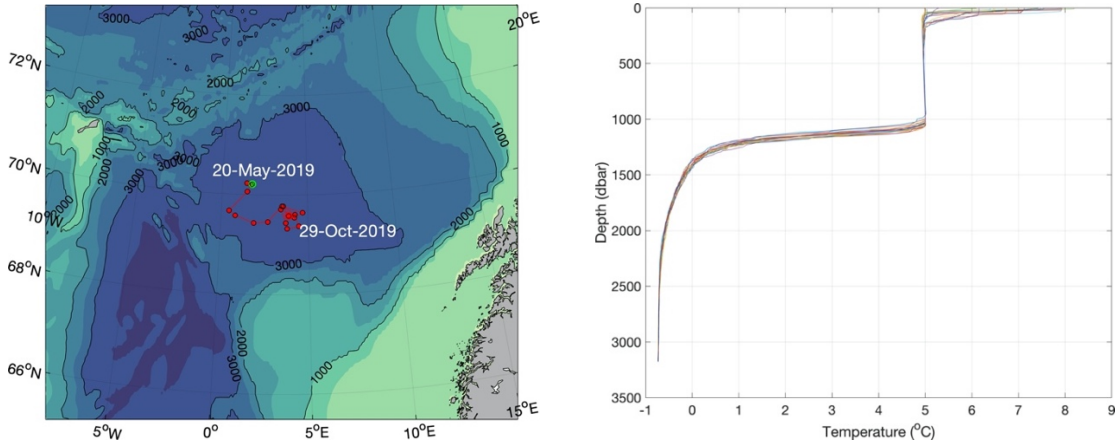
Cruise leader Henrik Søiland prepares for the next Argo deployment (photo: Tor de Lange)



Cruise track and location of Argo float deployments (left figure) and three float types from left to right (right figure, photo: Tor de Lange): bio, deep, and BGC floats.

A deep float in The Lofoten Basin Eddy

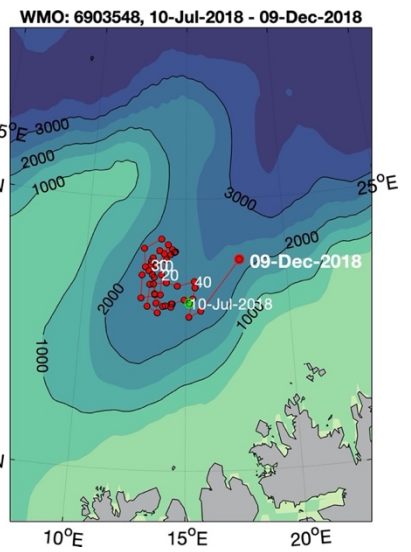
Three Argo floats were deployed in the Lofoten Basin Eddy (LBE), an anticyclonic eddy in the Lofoten Basin that seems to be permanent. The eddy is characterized by a 1000-1200 m thick Atlantic Water mass that is warmer and saltier than adjacent water masses. The first temperature profiles from the deep float in the LBE is shown below.



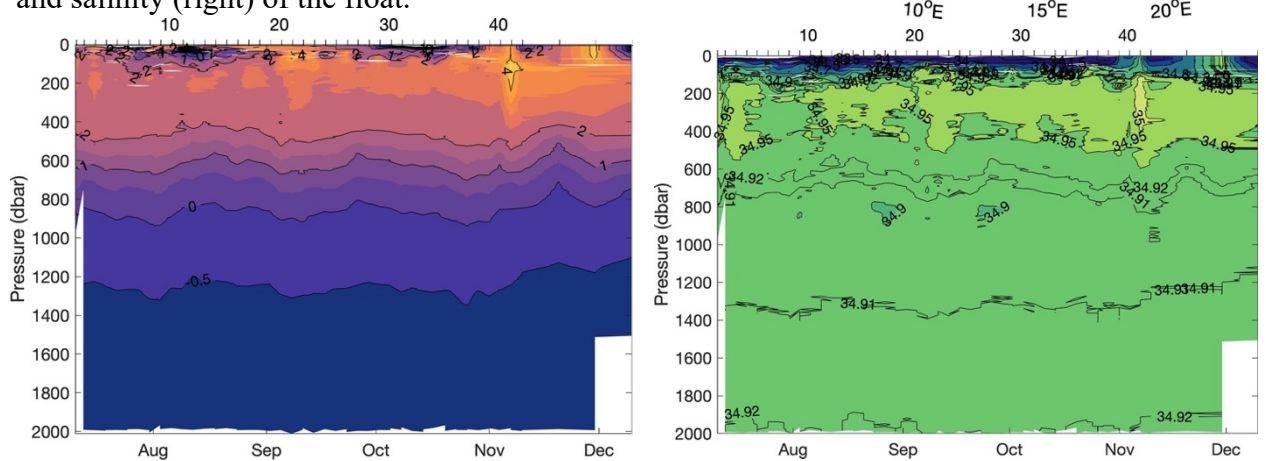
Drift and all (in-situ) temperature profiles from the deep-float in the Lofoten Basin 20 May – 29 October 2019 (WMO 6903557).

An Argo float north of Svalbard

As part of the extension of the Argo system into the Arctic Ocean an Argo float was deployed from R/V Kristine Bonnevie north of Svalbard in July 2018. In order to avoid the sea ice when ascending to the surface the float has an Ice Avoidance Algorithm. However, after transmitting until 9 December 2018 (45 profiles), there has been no contact with the buoy. The float has most likely advected under the thicker multiyear ice, and is unable to surface for a long time...

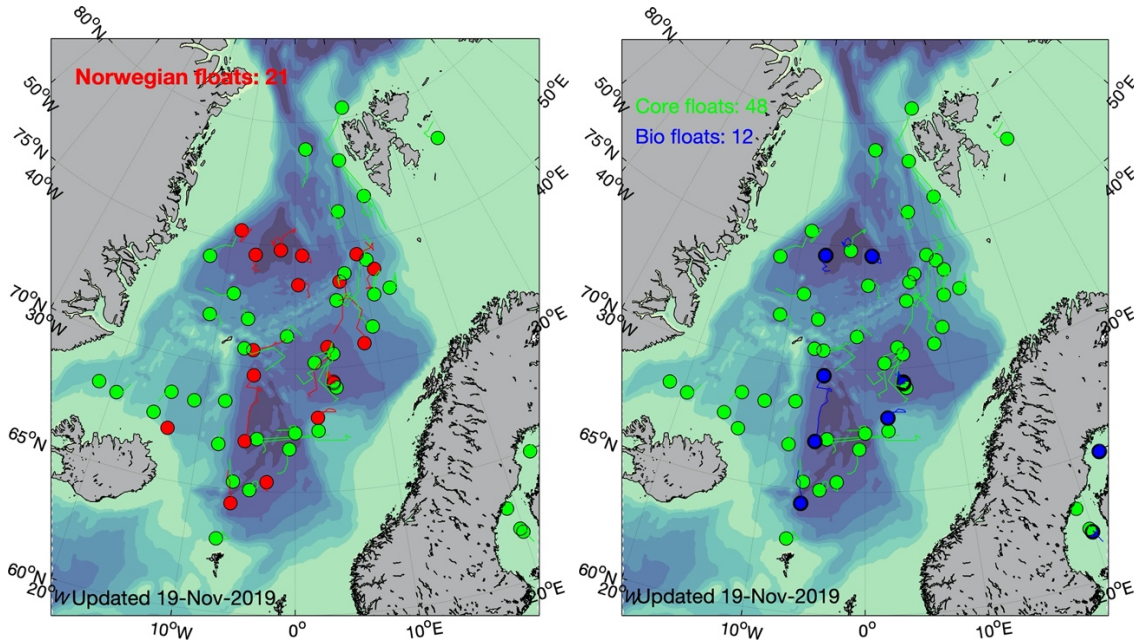


The figures present the drift (upper right), temperature (left) and salinity (right) of the float.



Where are the Argo floats now?

There are 56 operative floats in the Nordic Seas, Barents Sea and Arctic Ocean. 21 of these are Norwegian floats. There are 12 floats that have one or several additional sensors (deep/bio/BGC-floats) and all of these are from NorArgo!



For updated information on the Argo float locations and data in the Nordic Seas go to <http://www.imr.no/forskning/prosjekter/norargo/map>

Outreach

A selection of different outreach activities.

Argo float in the museum!

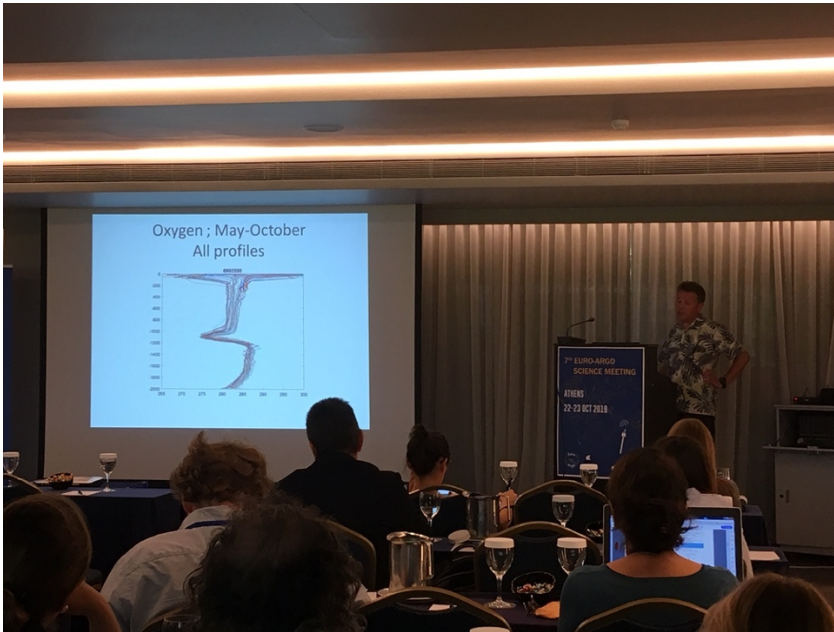
An Argo float was donated to the [University Museum of Bergen](#), and is located in the Natural History exhibition.

[Euro-Argo Science Workshop \(Athens, 22-23 October\)](#)

Three participants from NorArgo attended the workshop with presentations:

- Henrik Søiland, IMR (“A Deep Coherent Eddy in the northern Norwegian Sea observed with Argo floats”)
- Kjell Arne Mork, IMR (“Hydrographic changes and Argo activities in the Nordic Seas and Arctic”)
- Stig Falk-Petersen, Akvaplan-niva (“The need for ocean data in near real time in ocean and coastal management”)

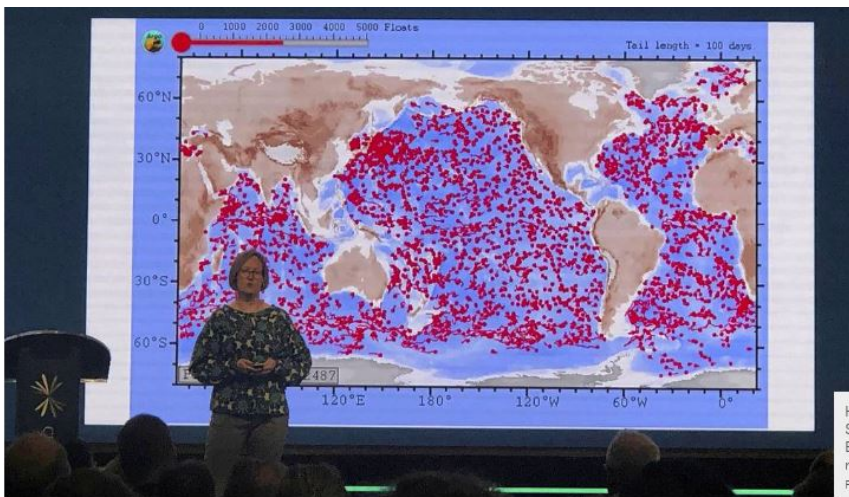
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Henrik Søiland presents data from an Argo float in the Lofoten Basin Eddy.

[The Christie Conference \(Bergen, 29 April\)](#)

Siv Lauvset (NORCE) presented Argo at the Christie conference with the title “Roboter i verdenshavene: The Voyage of Argo”.



Hver eneste prikk er en havforskningsrobot. Seniorforsker Siv Lauvset ved Norce og Bjerknessenteret viser frem det globale robotnettverket på Christiekonferansen. FOTO: LARS-HENRIK PAARUP MICHELSEN

Nesten 4000 roboter leverer forskningsdata fra havet

I mai blir det satt ut ti nye norske roboter.

FISKERI

BGC and Deep float training session (Bergen, 29-30 April)

A Biogeochemical (BGC) and Deep Argo float training session was organized by the Institute of Marine Research. There were participants from IMR, Norce, and Univ. of

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Bergen. At the training session, Jérôme Sagot (NKE Instrumentation, France), presented the different possibilities for programming the BGC and Deep floats.



Upcoming events

- NorArgo2 annual meeting in Bergen, December 12, 2019.
- User group meeting in Tromsø, Sometime in the period January 27-31, 2020.
- Arctic Frontiers 2020 in Tromsø, January 26-30, 2020.

For more information and contacts: <https://norargo.hi.no>