



POLARIN Key Research Priority 8:

Closing (selected) Polar Knowledge Gaps

Understanding and reducing uncertainties in remote sensing products, upscaling products, and Earth System Models is essential to improve our capacity to observe, understand, and predict environmental and climate change in the polar regions. POLARIN has identified regions and infrastructures where large discrepancies exist between observing systems and where independent in-situ observations are lacking for key essential climate variables. Priority should be given to excellent science projects that will add targeted observations that can help validate and calibrate remote sensing products, upscaling products and models for following variables, regions and infrastructure:

a. Above Ground Biomass:

- a. Koltur Research Station (FO)
- b. Oulanka Research Station (FI)
- c. Sudurnes Science and Learning Centre (IS)
- d. Western Arctic Research Centre (CA)
- e. Whapmagoostui-Kuujjarapik Research Station(CA)

(Station locations can be seen on www.polarin-gis.org)

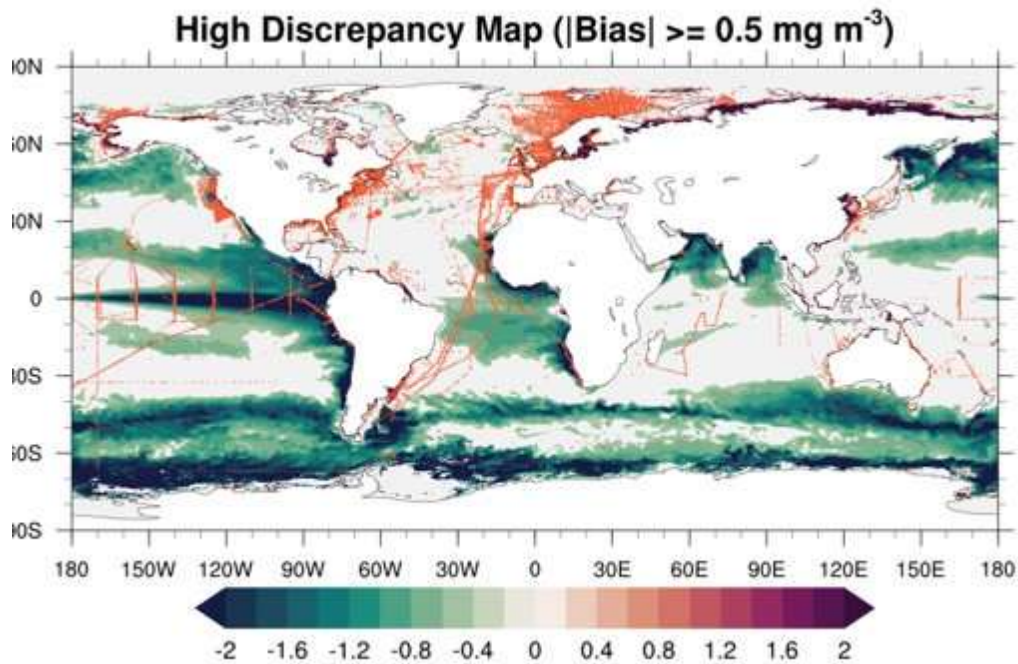
b. Soil Organic Carbon:

- a. Barrow Arctic Research Center (US)
- b. Zackenberg Research Station (GL)
- c. KEVO Research Station (FI)
- d. Tarfala Research Station (SE)
- e. DMI Geophysical Observatory (GL)

(Station locations can be seen on www.polarin-gis.org)

c. **Ocean colour (Chlorophyll a):** In situ observation in darker green or darker red polar areas.

(Check vessel routes on www.polarin-gis.org)



d. **Sea Surface Salinity:** In situ observation in darker green or darker red polar areas.

(Check vessel routes on www.polarin-gis.org)

