

Status of implementation (number of floats, sensors, ongoing programs incl. websites) 1/1

Deployments in 2022

DFO + Uvic deployments in NE Pacific :

- 10 NKE Arvor floats with CTD, DO



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Takuvik deployments in Baffin Bay :

- 2 NKE CTS5-Usea floats with CTD, DO, nitrate, Chla, backscatter, light, CDOM, light + high sensitivity PAR (1 w/ UVP)
- 2 NKE BGC floats recovered for retrofit

TAKUVIK



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DFO deployments in NW Atlantic :

- 7 NKE Arvor floats with CTD, DO
- 2 NKE Provor floats with CTD, DO, Chla, backscatter



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DFO deployments in Indian Ocean:

- 2 NKE Provor floats with CTD, DO, Chla, backscatter
- 2 NKE Provor floats with CTD, DO, Chla, backscatter, pH



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Status of data management and DAC activities (if applicable) 1/1

Real-time Quality Control

- System to handle NKE CTS4 data has been developed/tested at MEDS and has been functioning since Fall 2022
- Development for NKE CTS5 floats required in 2023. Optimistic this will be in place in time for deployment

Delay-mode Quality Control

- Chris Gordon has developed a Python package for DMQC of BGC variables
- Efforts currently focused on DMQC of existing oxygen data that has been flagged in audits
- Plan to identify experts for different BGC variables that can provide advice to the DAC on DMQC issues

Future prospects (national fundings, deployment plans for the upcoming years, cruises, ...) 1/1

DFO + Uvic:

- Floats ordered for deployment in NE Pacific
 - 5 NKE Arvor floats with CTD, DO
 - 5 NKE CTS4 Jumbo with CTD, DO, Chla, bbp
 - 2 NKE CTS5 Jumbo floats with CTD, DO, Chla, bbp, light, nitrate

DFO:

- In store 4 NKE w/ CTD, DO, Chla, bbp, (1 w/ pH)



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ONC:

- Ordered 18 NKE Arvor Deep with CTD, DO for 4,000 m profiling depth (~25% of the Deep DO array – looking for feedback on where to deploy); 2 have arrived for deployment on NE Pacific



Takuvik:

- Amundsen cruise to Baffin Bay in 2023: 2 or 3 NKE CTS5-Usea floats with CTD, DO, nitrate, Chla, bbp, light, CDOM, light + high sensitivity PAF



Dal/MUN:

- purchased 5 NKE CTS5 Jumbo floats CTD, DO, Chla, backscatter, light (delivery expected in May 2023)
 - German cruise on the Merian to the Labrador Sea, Nov 2023: deploy 2
 - Canadian/Irish cruise on the Celtic Explorer, May 2024: deploy 3
- tender for ~30 BGC floats in summer of 2023

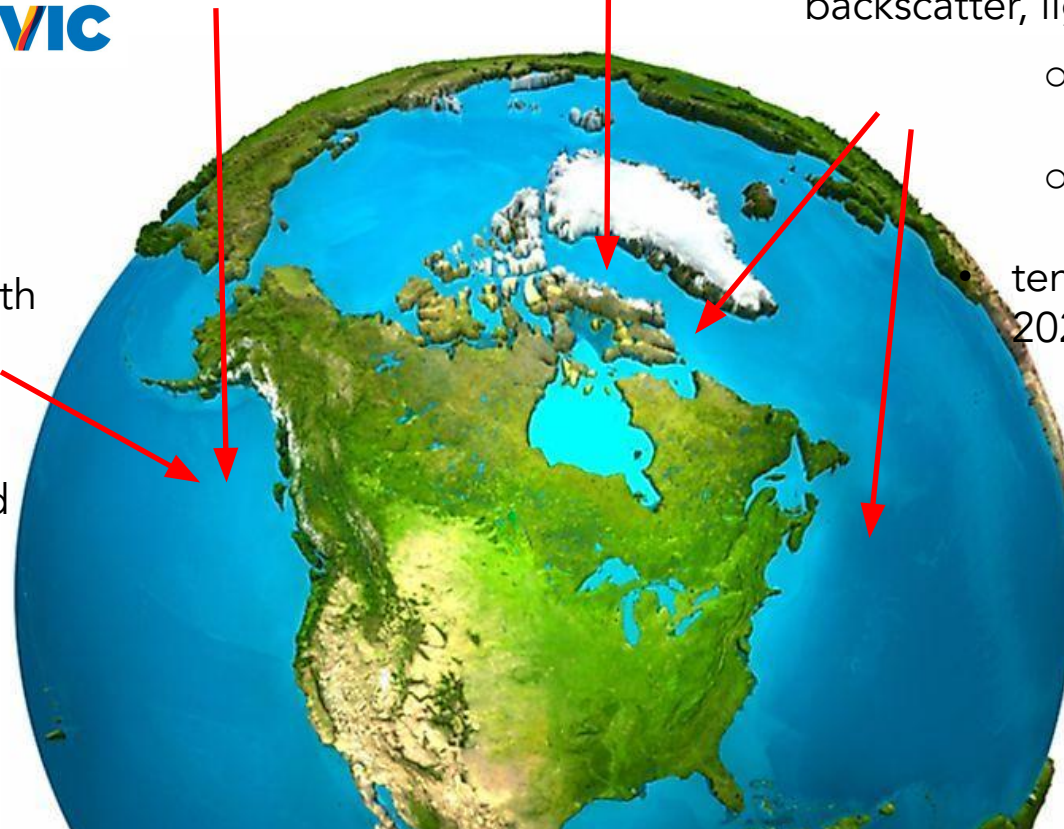


DFO:

- In store/ordered 5+5 NKE w/ CTD, DO, CHLA, BBP (1 w/ pH)
- 4 NKE Arvor floats with CTD, DO



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Issues that your country wishes to be considered by the Argo Steering Team 1/1

DFO has established a testing facility on the DRDC Barge in Bedford Basin, Halifax -- a low-current environment that facilitates tethered profiling to a water depth of 35 m -- enables short-term testing of floats and sensors.

ONC is working to establish a similar facility in Saanich Inlet.

NKE expressed some concern about this because the floats are not designed to be tethered and currents could cause issues with performance.

Question: Is there a general recommendation as to whether floats should be tested before deployment?

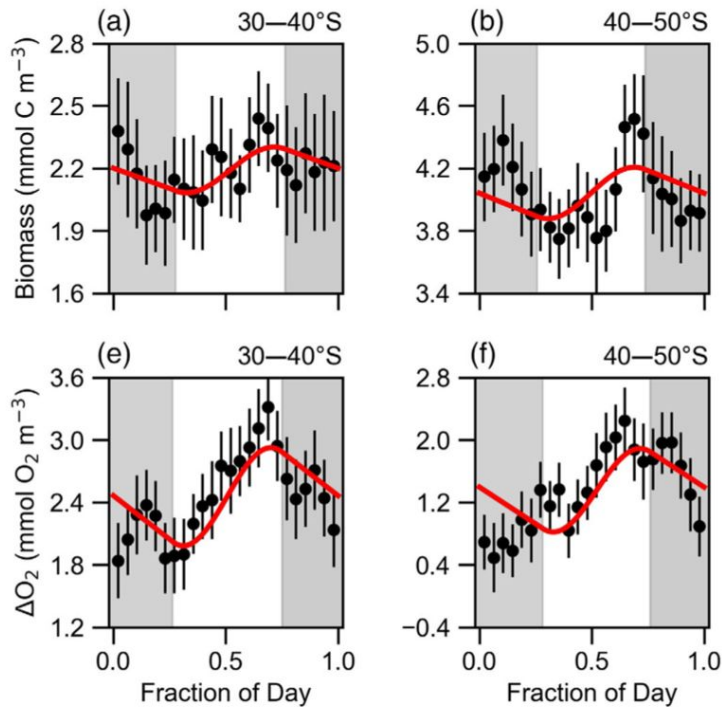


Communication (relevant bibliography, outreach activities ...) 1/2

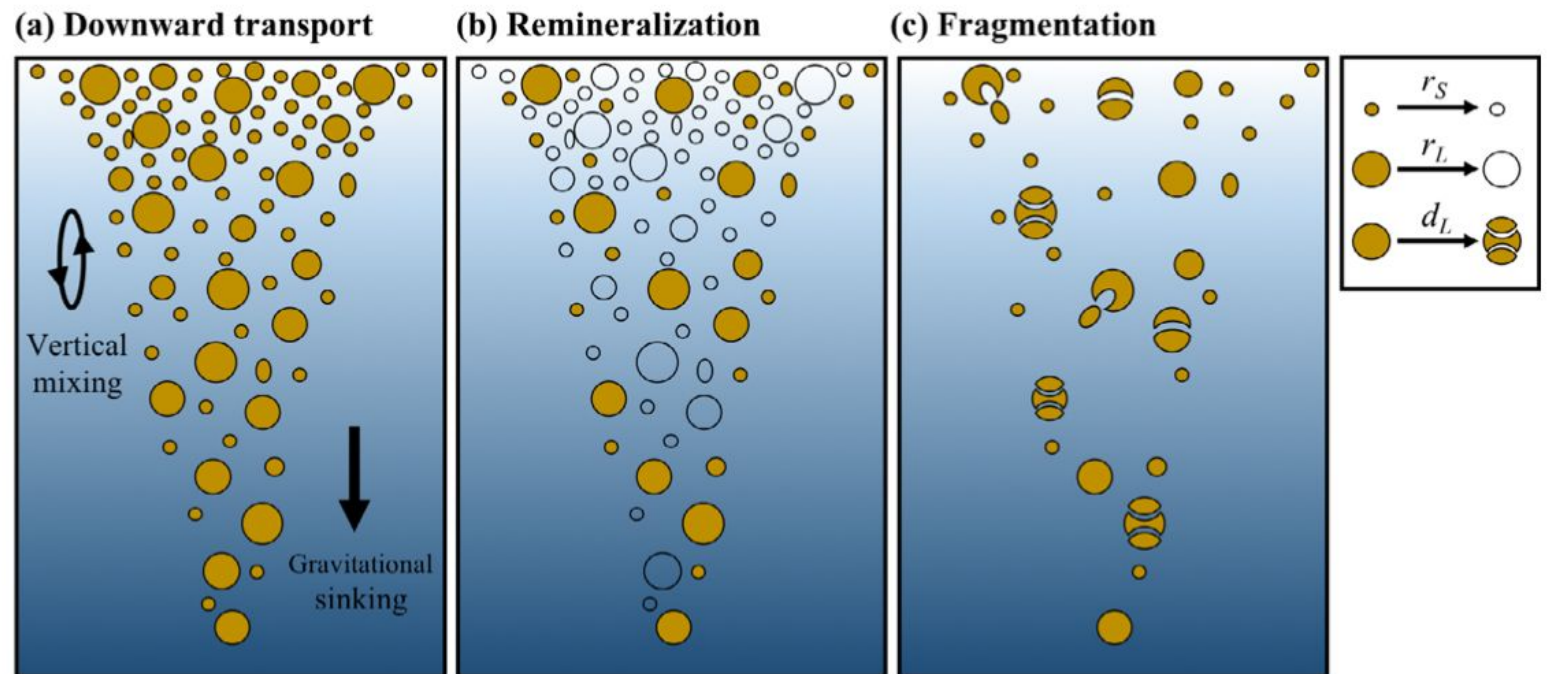
Stoer, A. C., Fennel, K., Retrieval of net primary productivity from daily cycles of carbon biomass measured by profiling floats, *Limnology and Oceanography Letters*, <https://doi.org/10.1002/lol2.10295>, 2022

Wang, B., Fennel, K., Biogeochemical Argo data suggest only a minor contribution of small particles to long-term carbon sequestration in the subpolar North Atlantic, *Limnology and Oceanography*, <https://doi.org/10.1002/lno.12209>, 2022

Wang, B., Fennel, K., An assessment of vertical carbon flux parameterizations using backscatter data from BGC Argo, *Geophysical Research Letters*, <http://dx.doi.org/10.1029/2022GL101220>, 2023



Stoer & Fennel, 2022

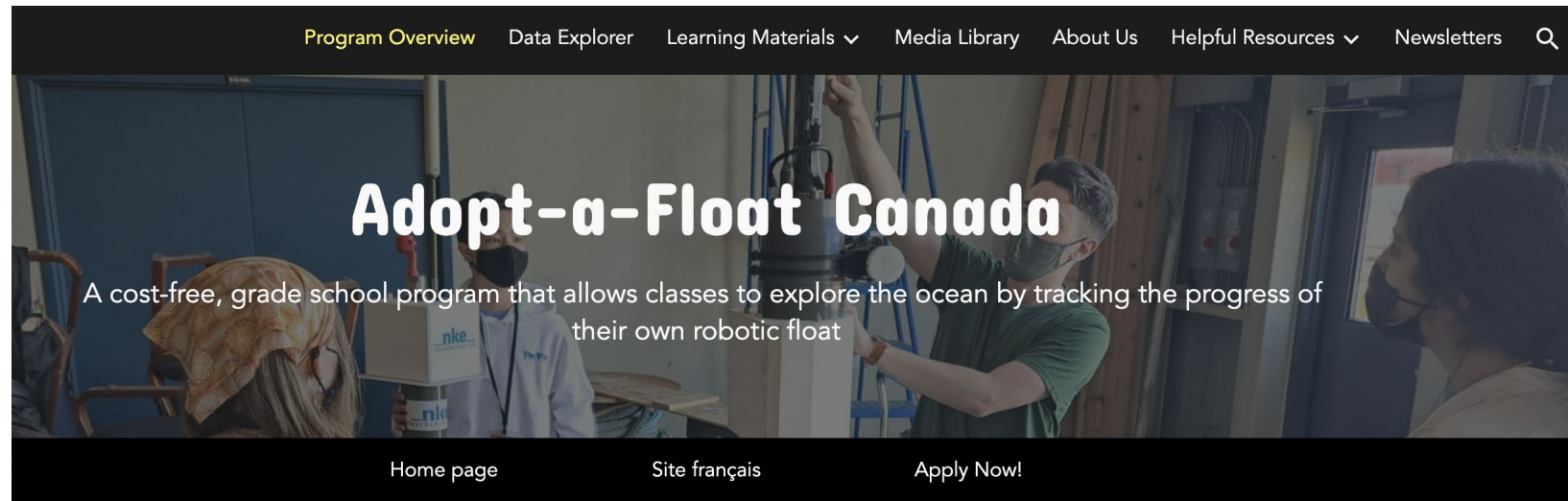


Wang & Fennel, 2022 & 2023

Communication (relevant bibliography, outreach activities ...) 2/2



Canadian Adopt-a-float program developed in 2022, launched last month, see <https://adopt-a-float.ocean.dal.ca/>



Float Name	Float ID	School Name	School Location	Date Deployed [yy-mm-dd]	Ocean Basin	Sensors
<u>Sharkie</u>	<u>4902598</u>	Sacred Heart School of Halifax	Halifax, NS	2022-09-10	NW Atlantic	CTD, Oxygen, Chlorophyll, Bio-Optics
<u>Miller the Dragon</u>	<u>4902599</u>	Lockview High School	Lockview, NS	2022-10-13	NW Atlantic	CTD, Oxygen, Chlorophyll, Bio-Optics