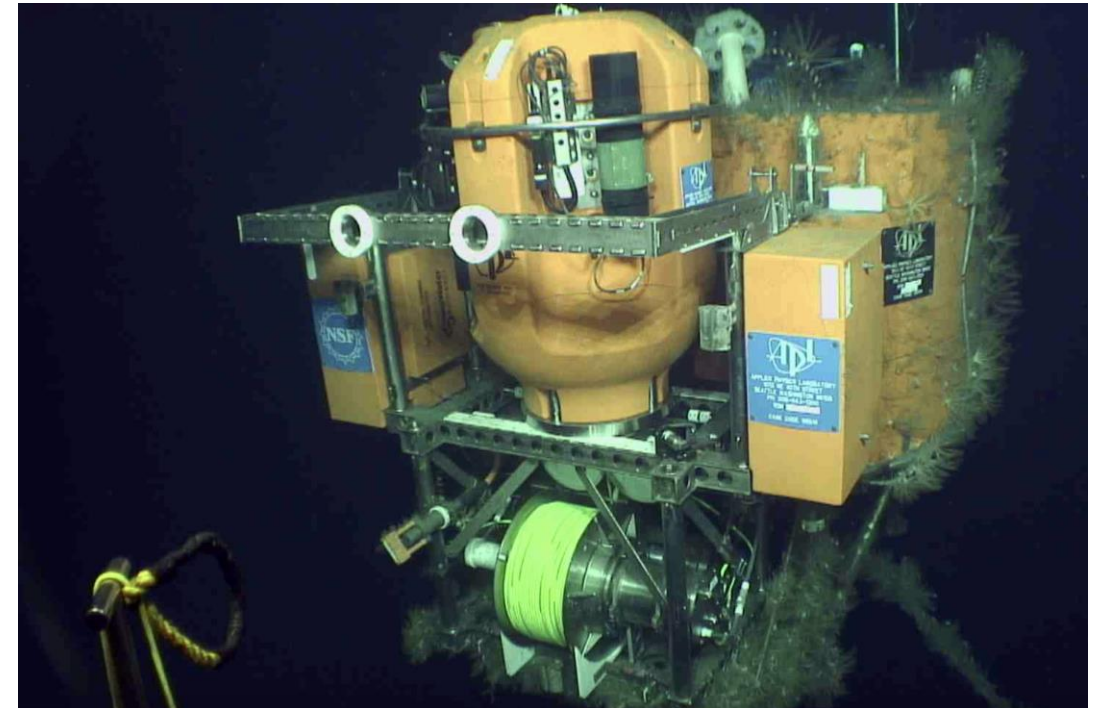
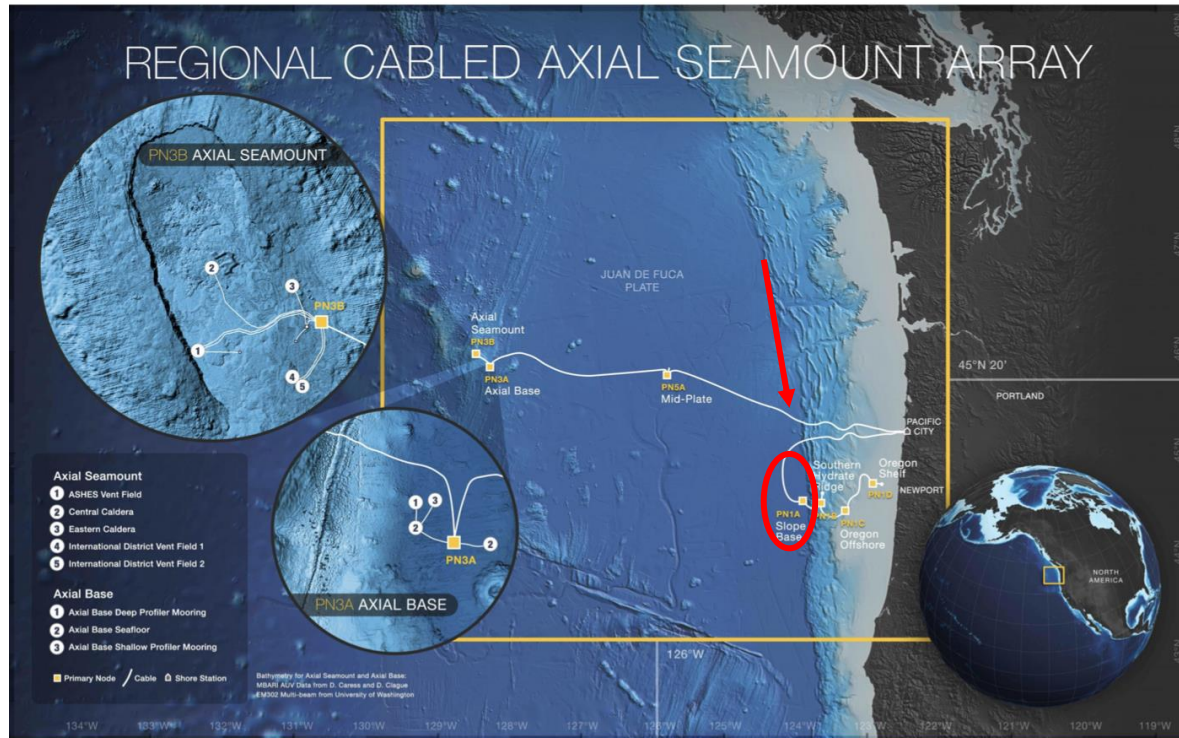


# The Ugly, the Good, and the Really Exciting

Kendra Daly  
University of South Florida

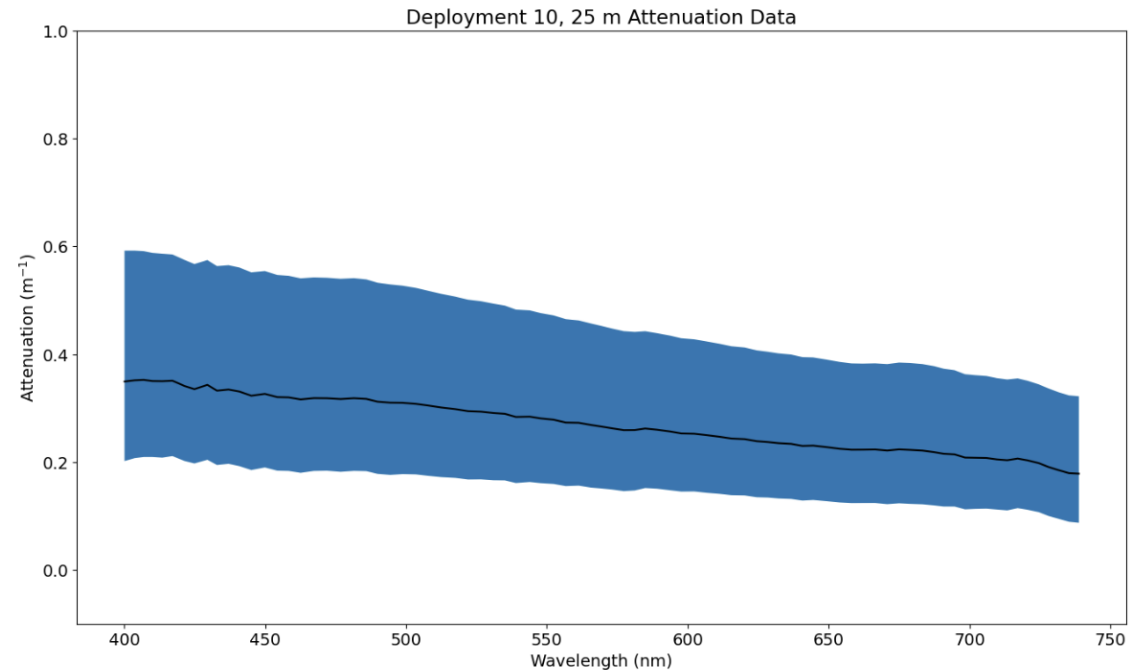
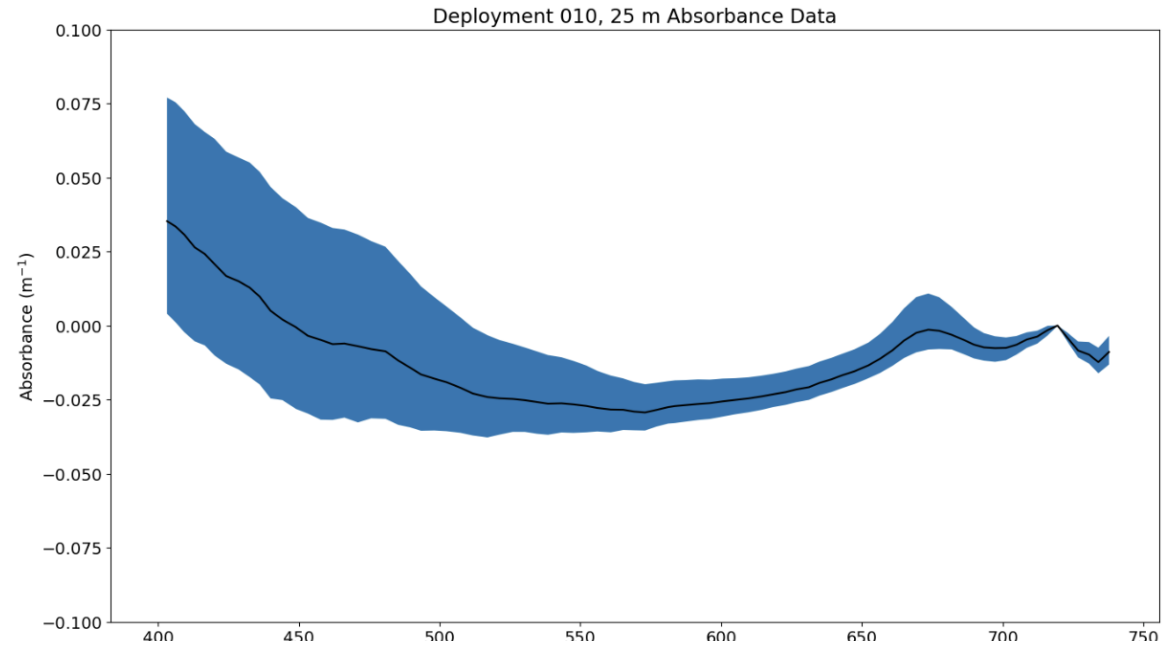


# The Ugly AC-S Data

Shallow Profiler at Slope Base

September 2022 (entire month)

Stay tuned –Chris is working on a solution

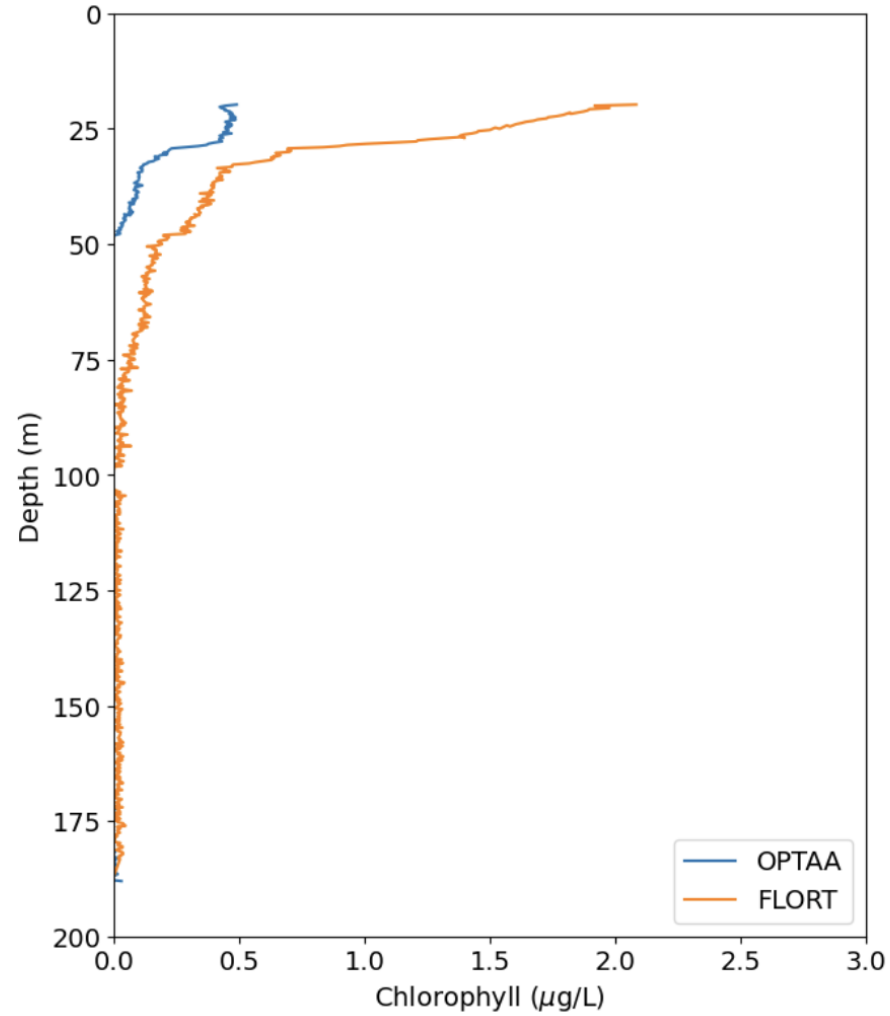


Downloaded profile starts about 20 m

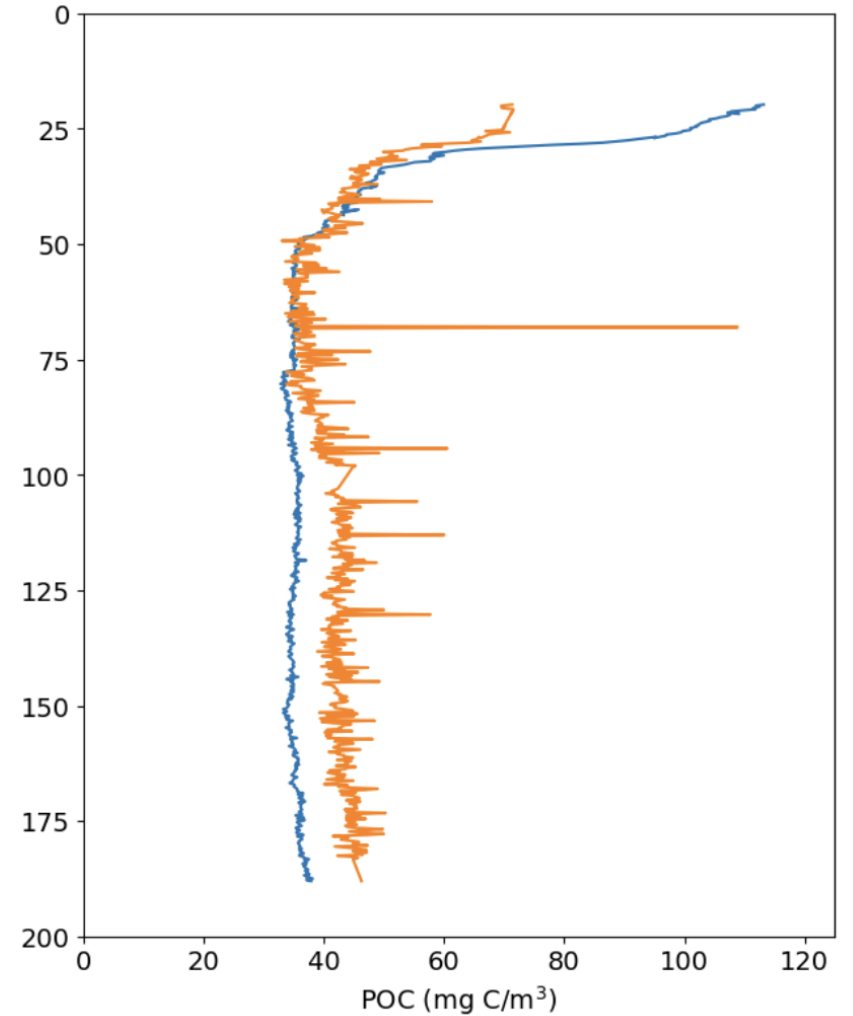
Chlorophyll sensor and AC-S don't match well

POC is a better match in upper 75 m

OPTAA Chl vs FLORT



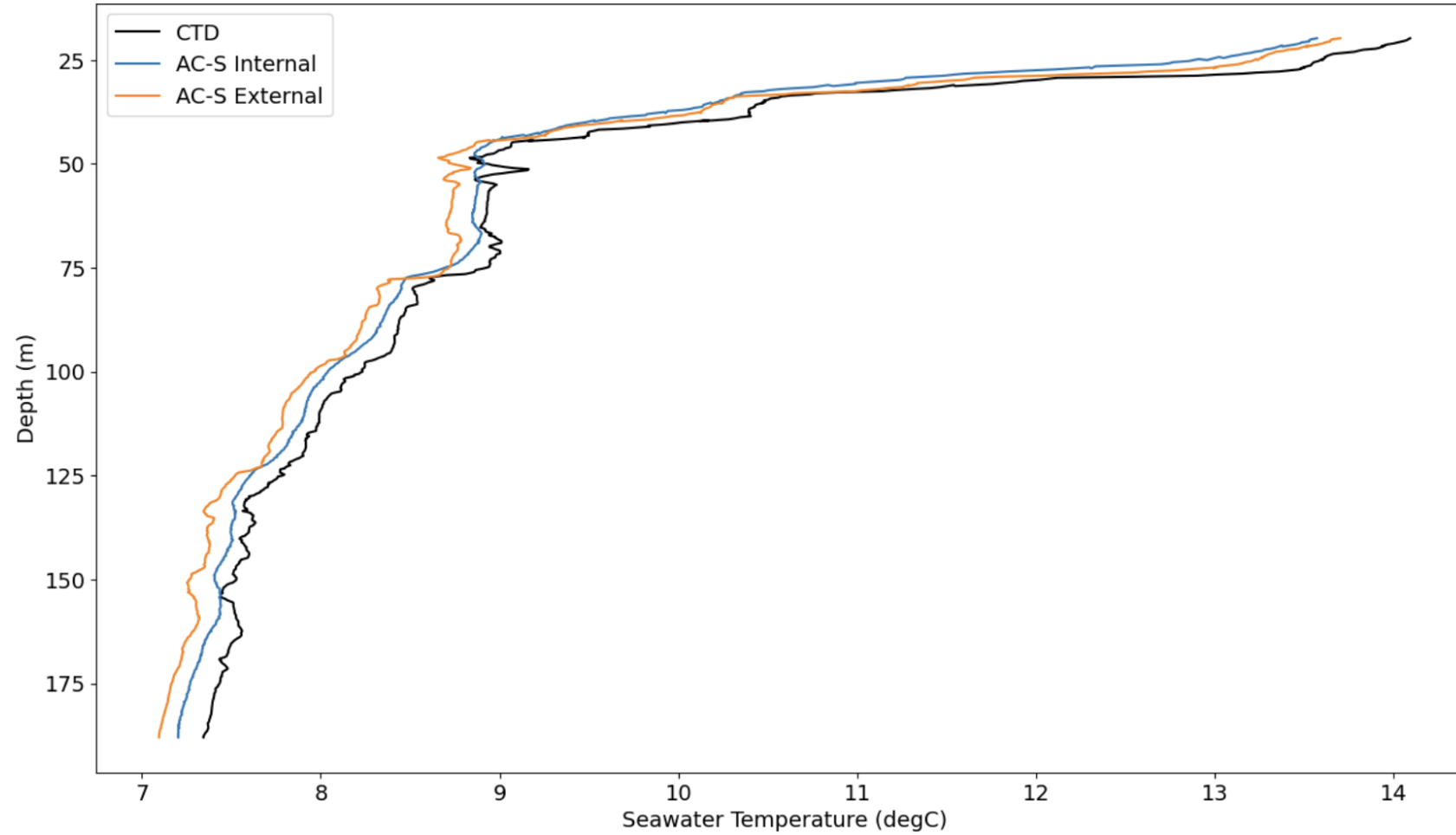
OPTAA POC vs backscatter



September 2022

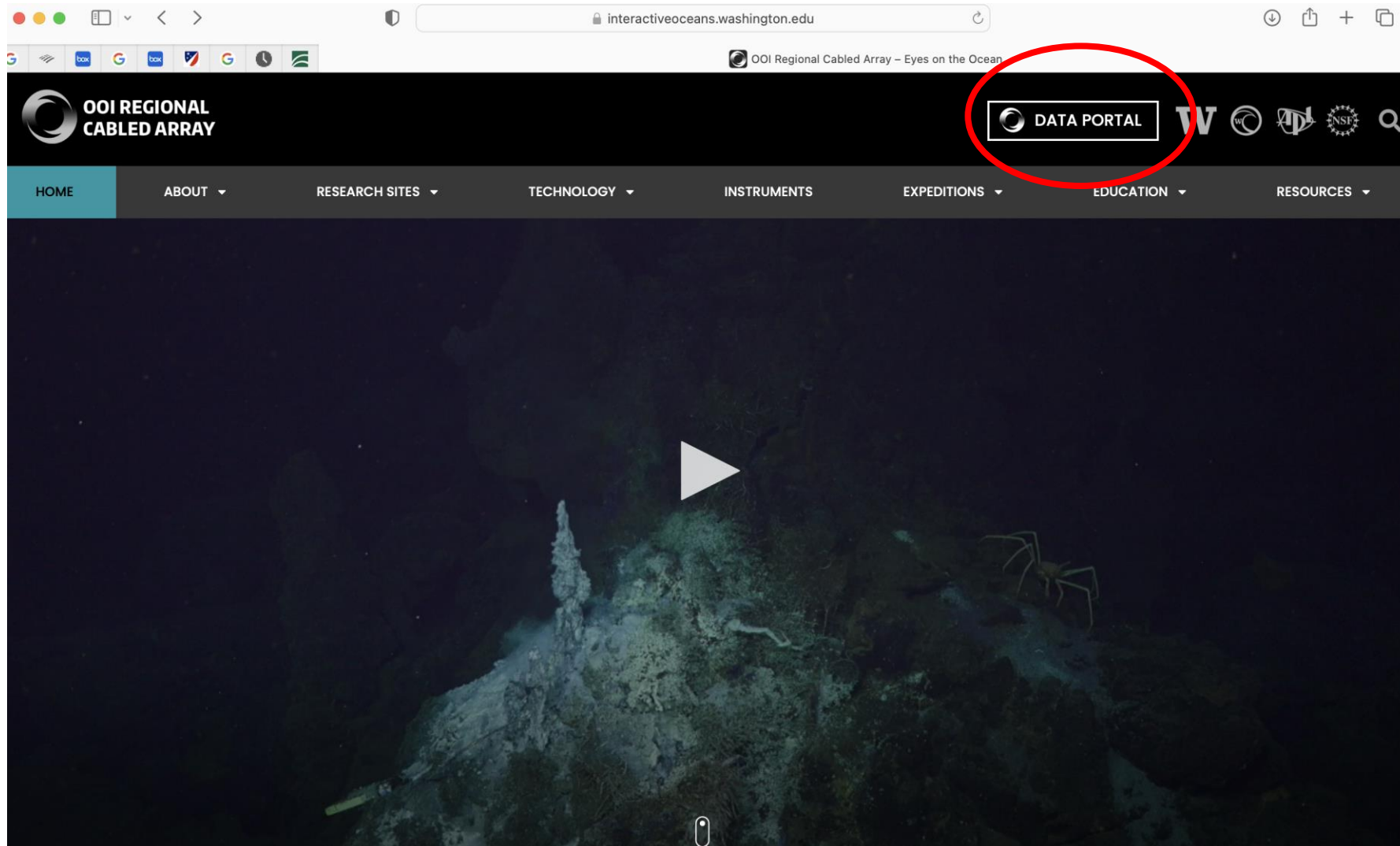
# The Good: Temperature matches pretty well

[9]: <matplotlib.legend.Legend at 0x7f8ea853fee0>

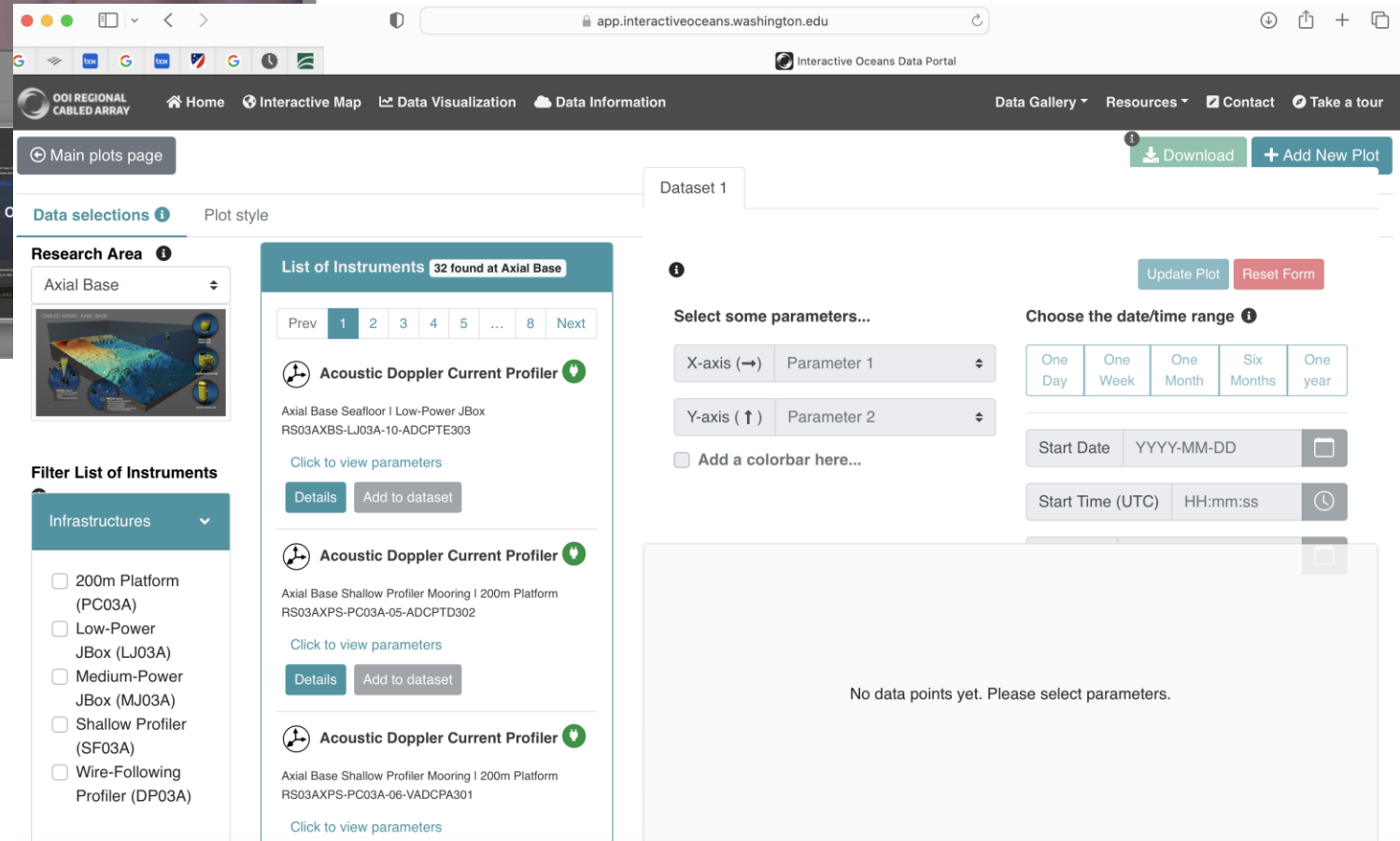
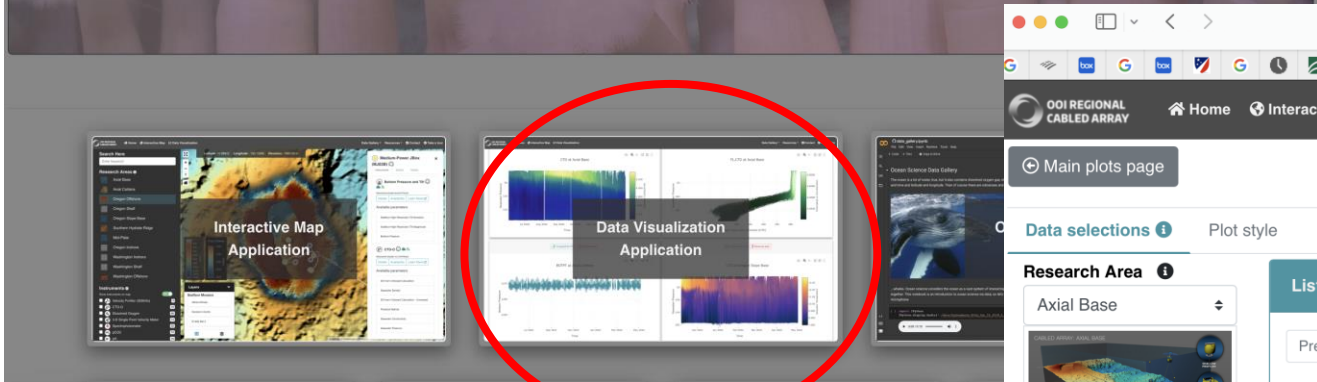
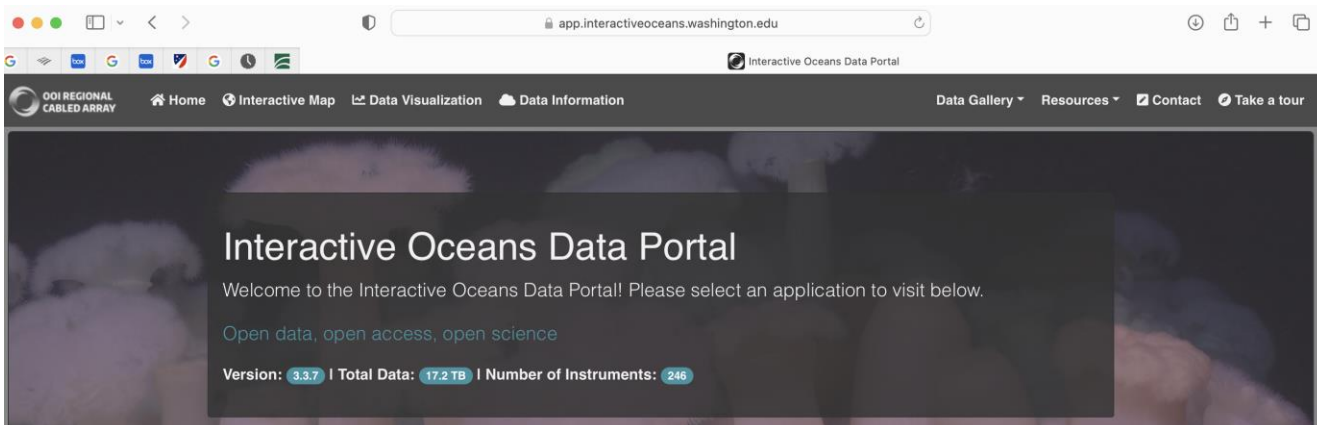


# Regional Cabled Array Website: Data Portal and Plotting Tools

<https://interactiveoceans.washington.edu>

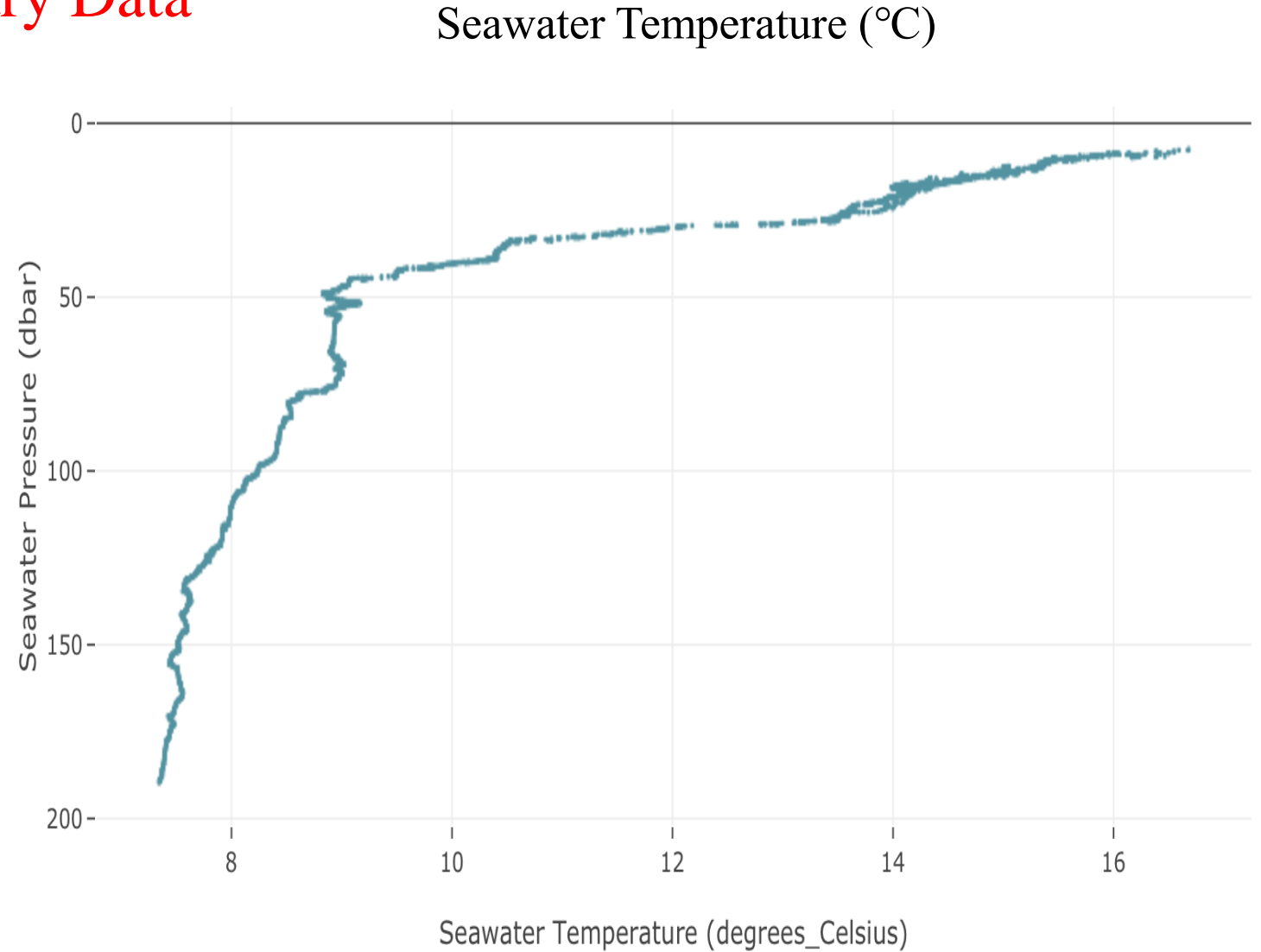






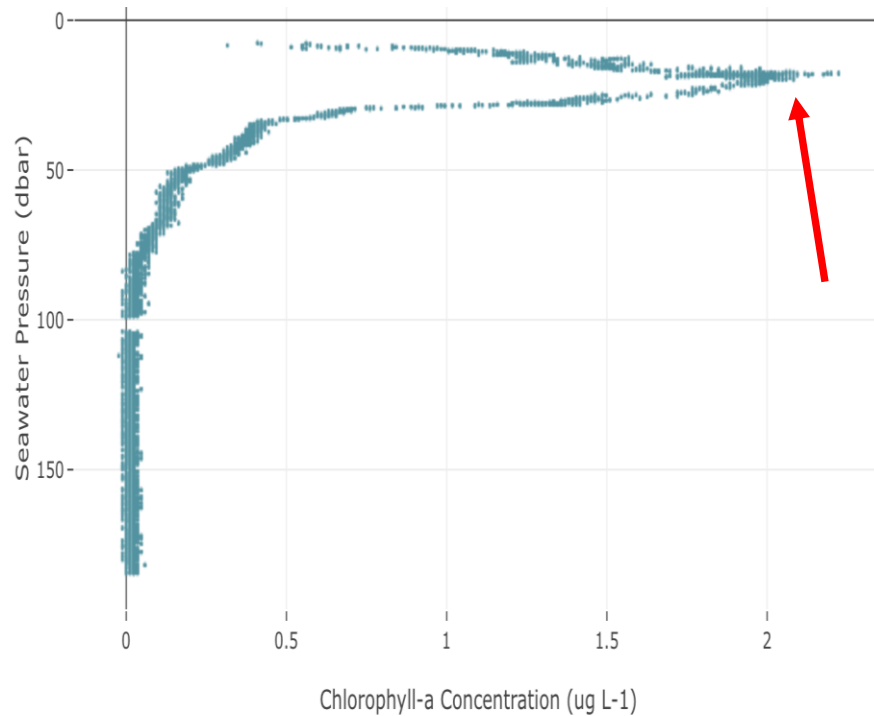
# The Really Exciting Ancillary Data

- Downloaded profile data shows that AC-S was missing data
- Need to better define a profile when downloading AC-S data or any profile

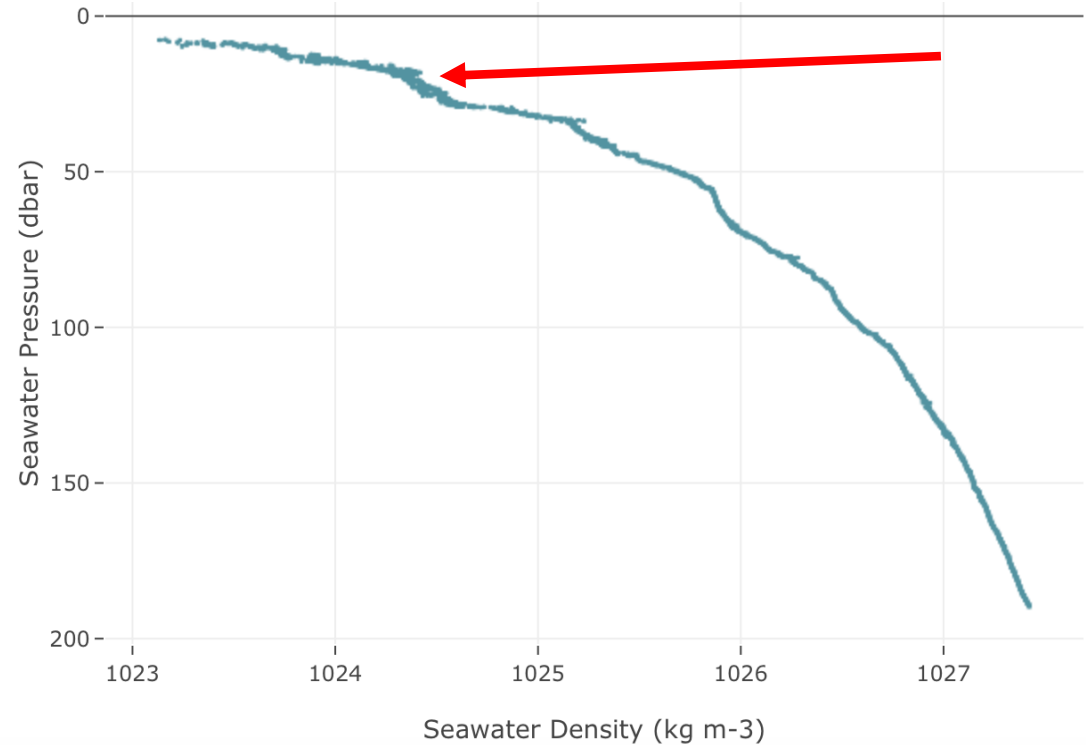


**Thin Layer!!** Chl bloom -  $2 \text{ ug chl l}^{-1}$  peak at 17.7 m sits on density interface

Chlorophyll ( $\text{ug l}^{-1}$ )



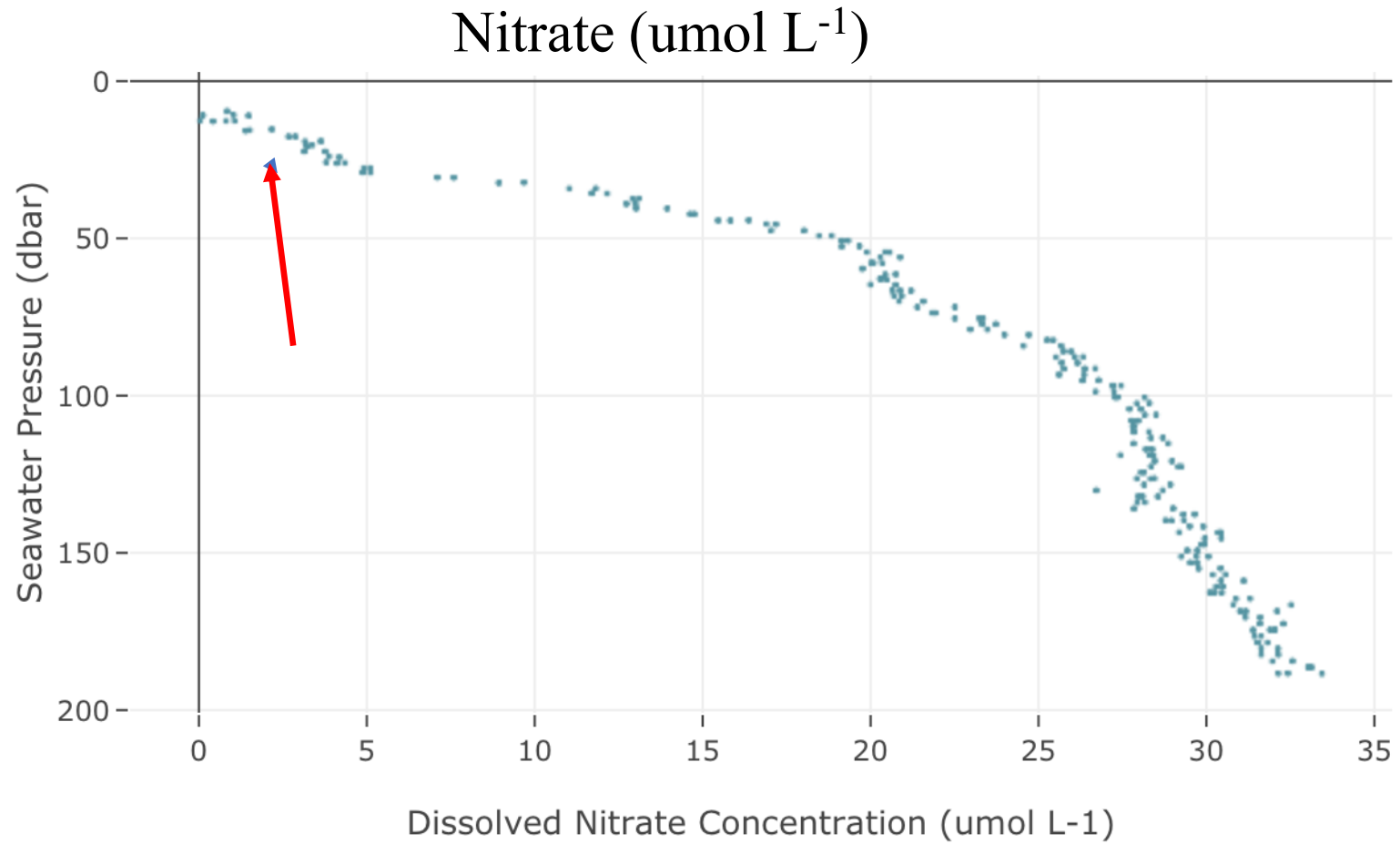
Seawater Density ( $\text{kg m}^{-3}$ )



Thin layers are concentrated aggregations of phytoplankton and zooplankton in coastal and offshore waters that are vertically compressed to thicknesses ranging from several centimeters up to a few meters and are horizontally extensive, sometimes for kilometers.



SUNA Nitrate at detection limit near surface; about 3  $\mu\text{mol L}^{-1}$  at 17 m



PAR at noon: Chl max at 20% of  $I_0$ .

Phytoplankton are in their happy place!! 🌈  
🏃♂️ ♀️

### Photosynthetically Active Radiation (PAR)

