

Oceanographic Datasets: Views from GLOOFINZ-IO

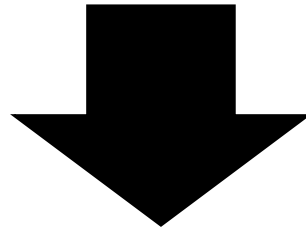
Tom Kelly
tbkelly@alaska.edu

Objective 4

Objective 4: Description of the oceanography of the SBT and co-occurring tuna larval spawning ground including climate change effects.

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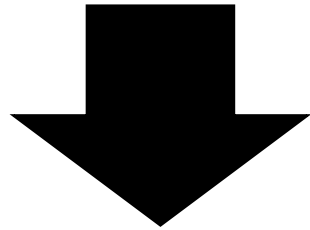
What are the physical drivers?

How do they impact the plankton community?

How does the physics + community impact BFT?

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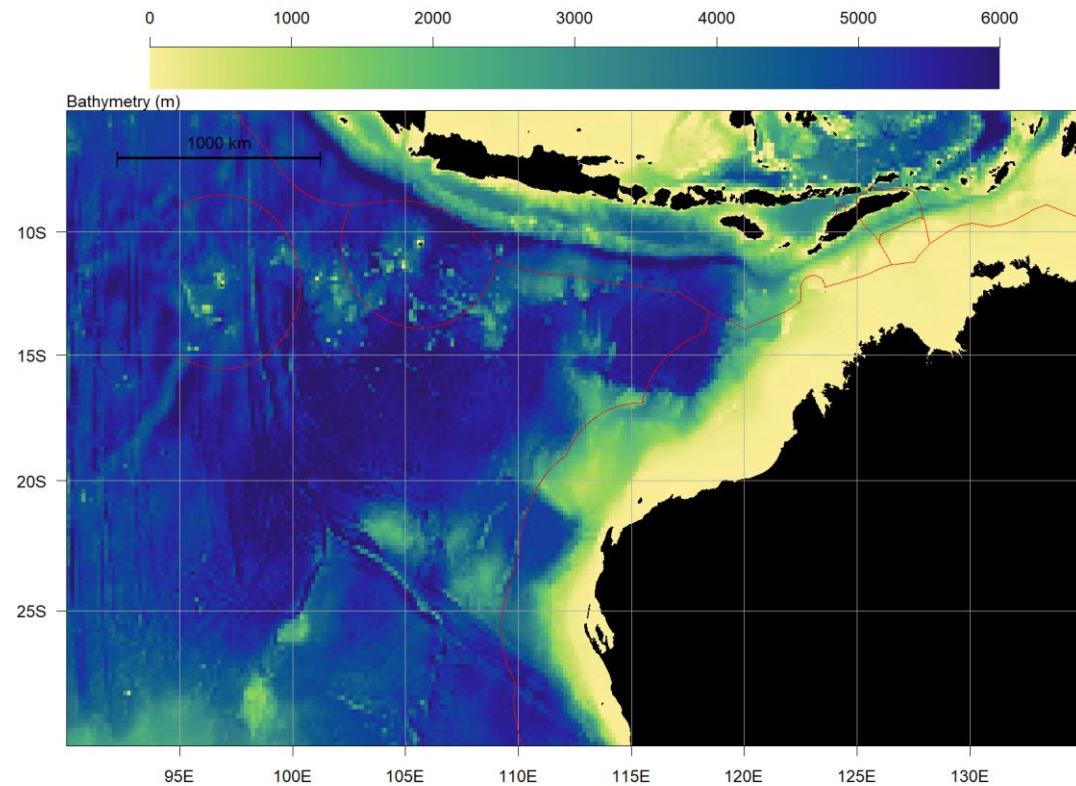


What are the physical drivers?
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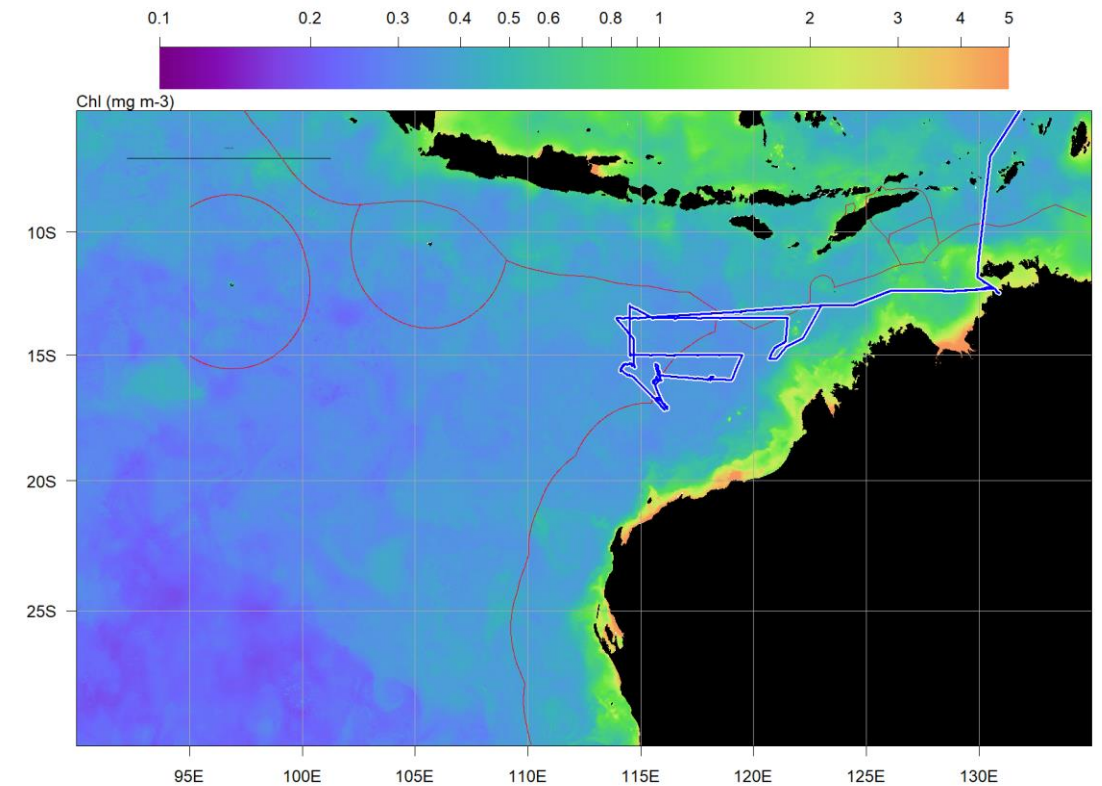


What data do we have?
What tools will we use?

Eastern Tropical IO: Overview



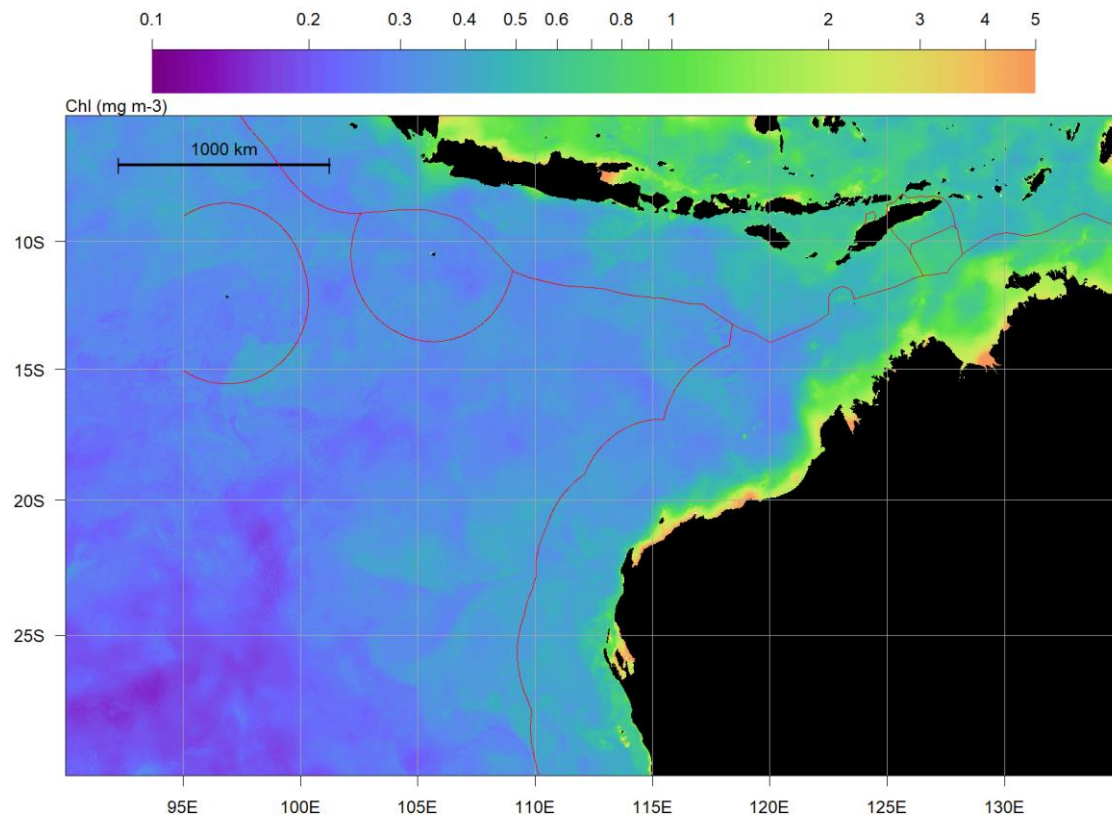
Bathymetry



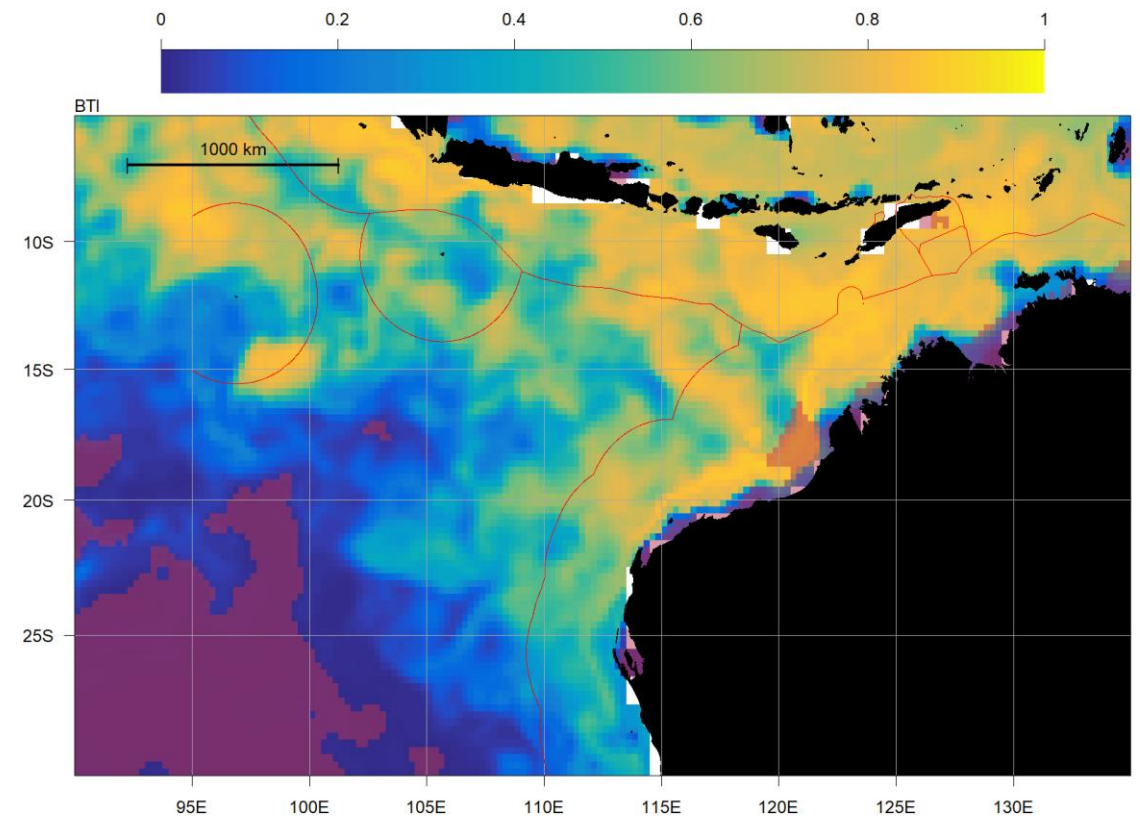
SS Chl-a Product (March 7, 2022, ESA)

Eastern Tropical IO: Overview

Satellite Chl Product



BTI (Muhling et al, 2010)



& Underway

Met.xlsx

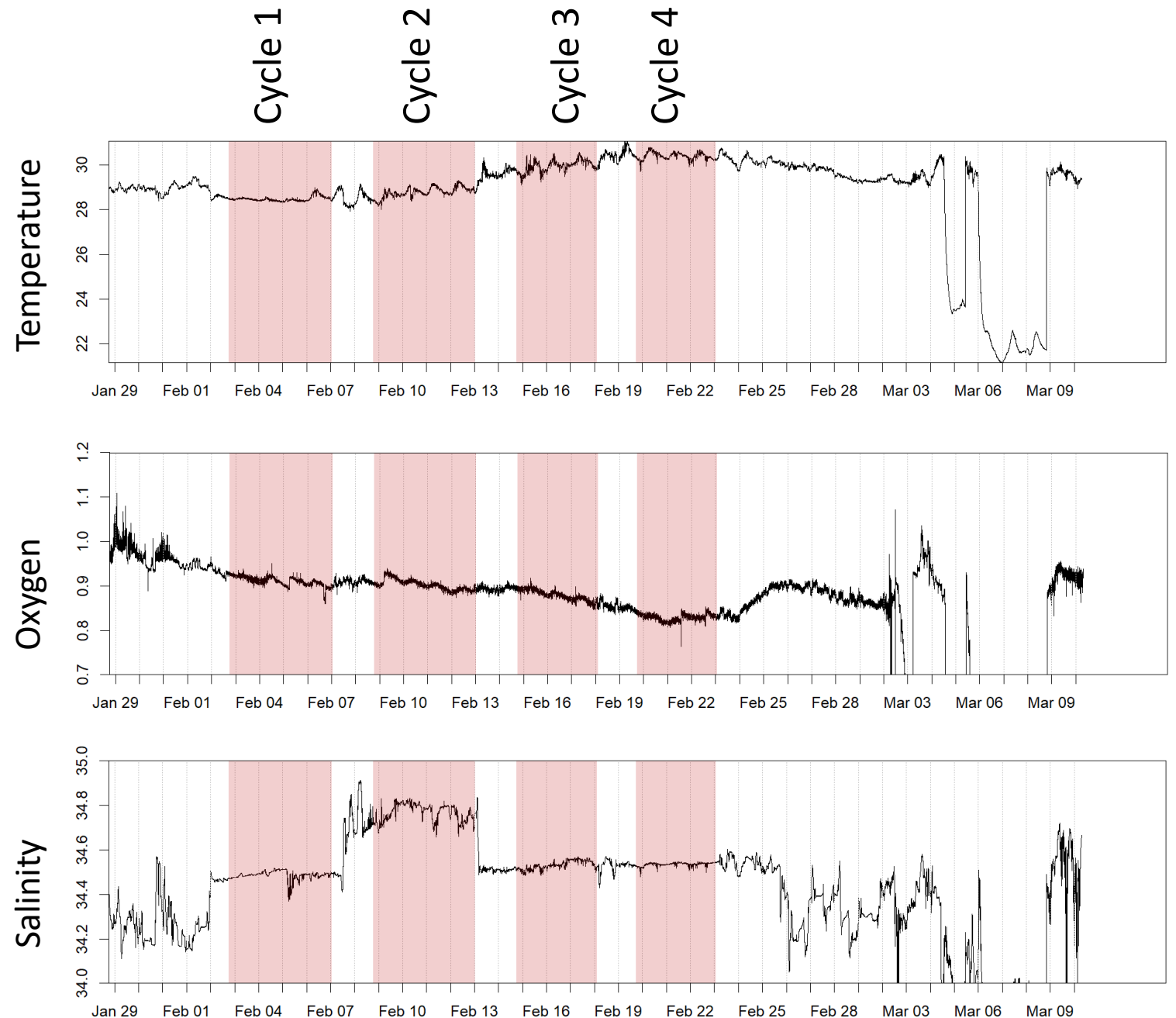
- Underway T, S
- Fluorescence
- Wind
- PAR
- Air temp, etc.

Ship Track.xlsx

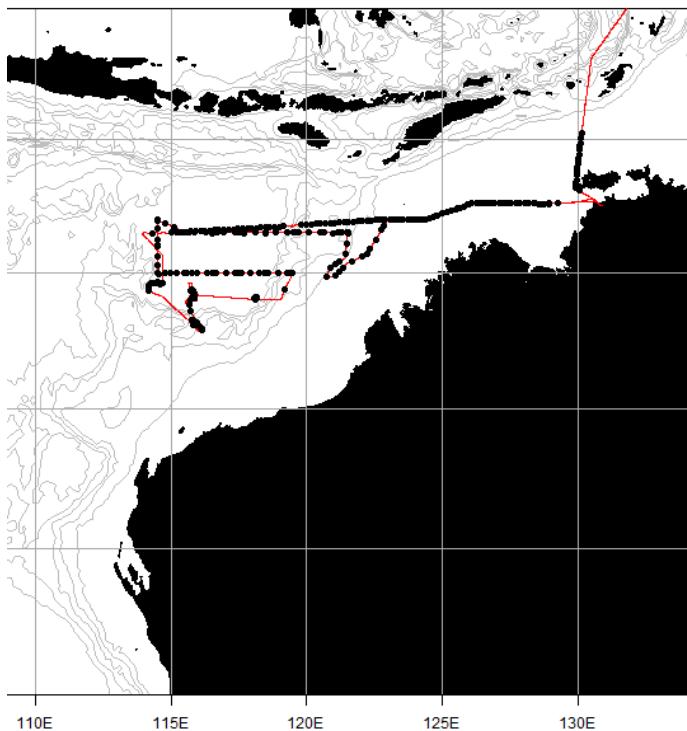
- Ship position

Also,

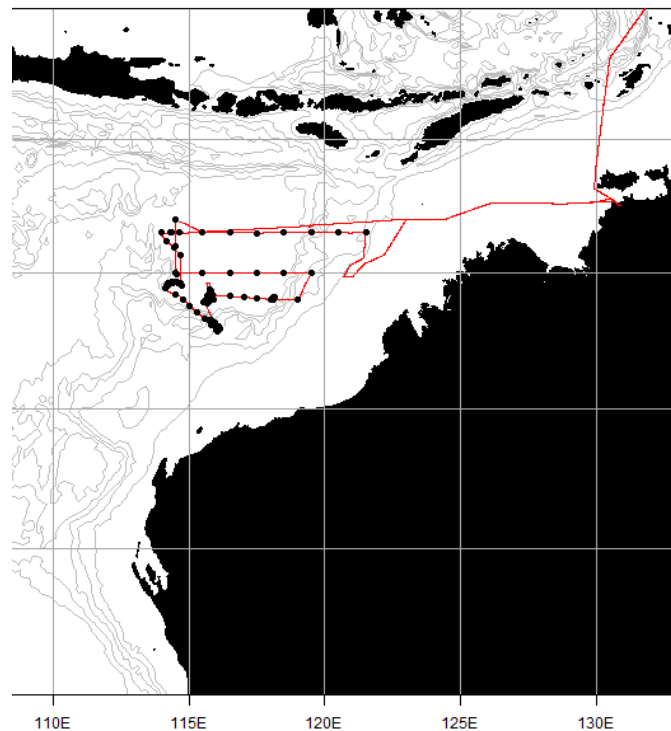
- Satellite products (SST, Chl, ssh)



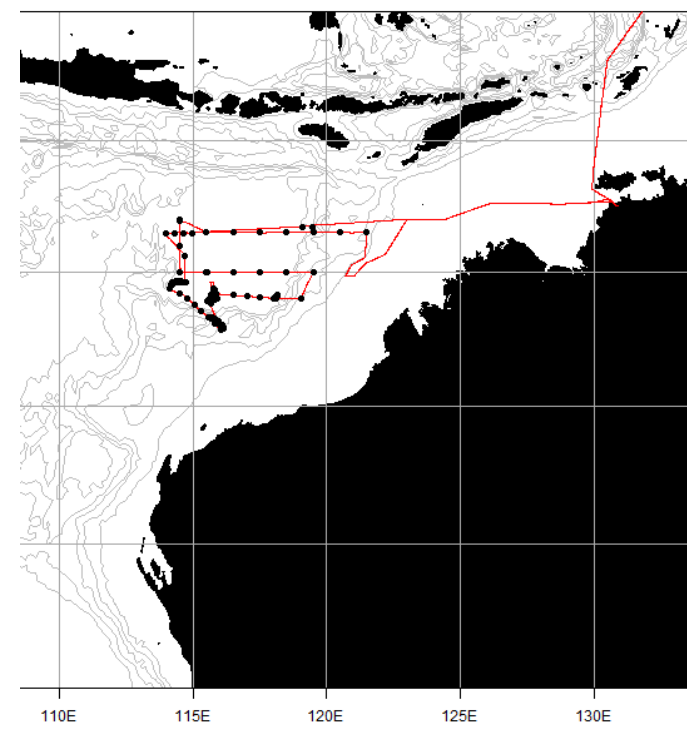
What else did we do?



Flowthrough



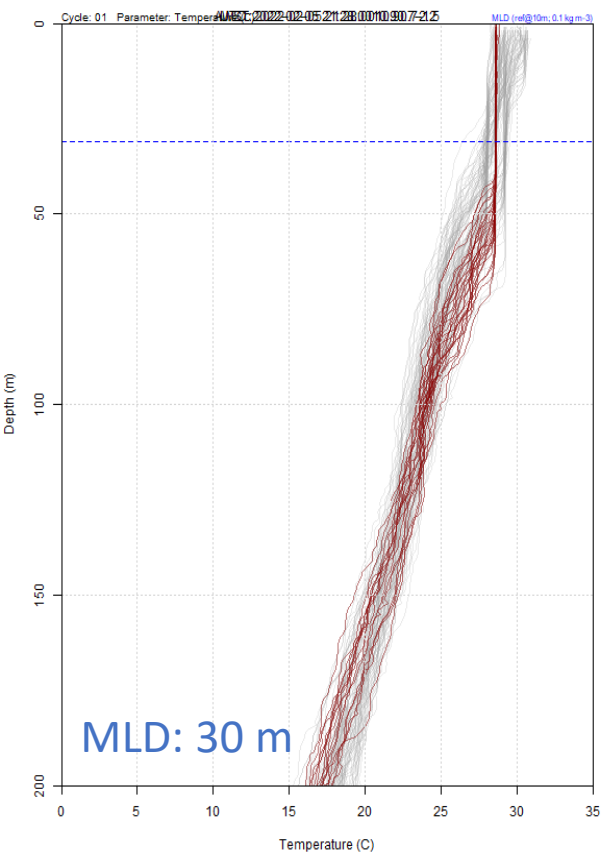
Bongo 90



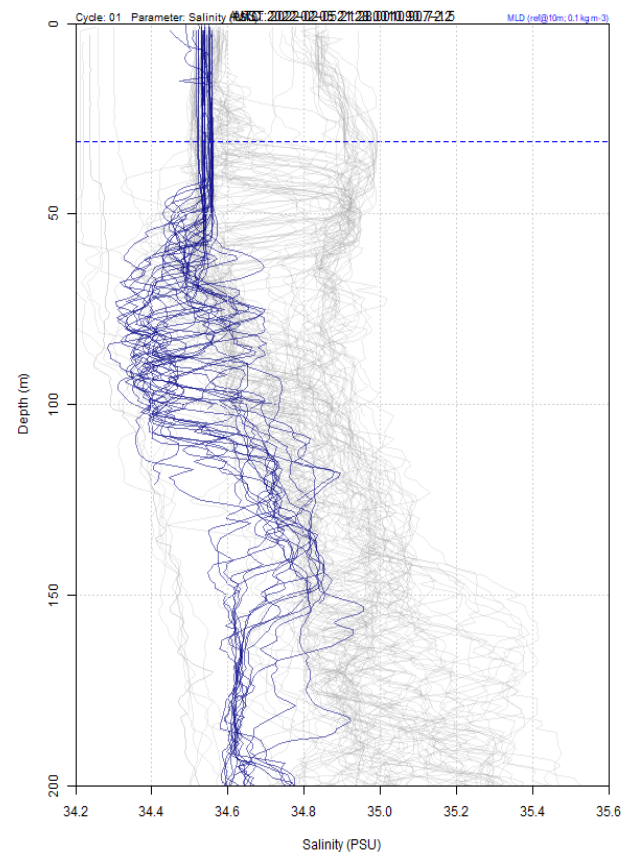
CTD

Cycle 1

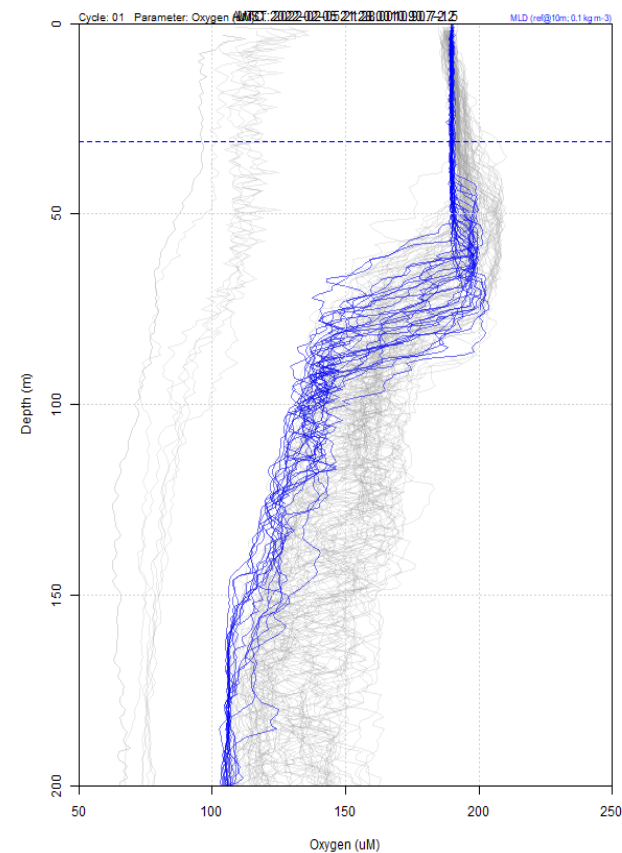
Temperature



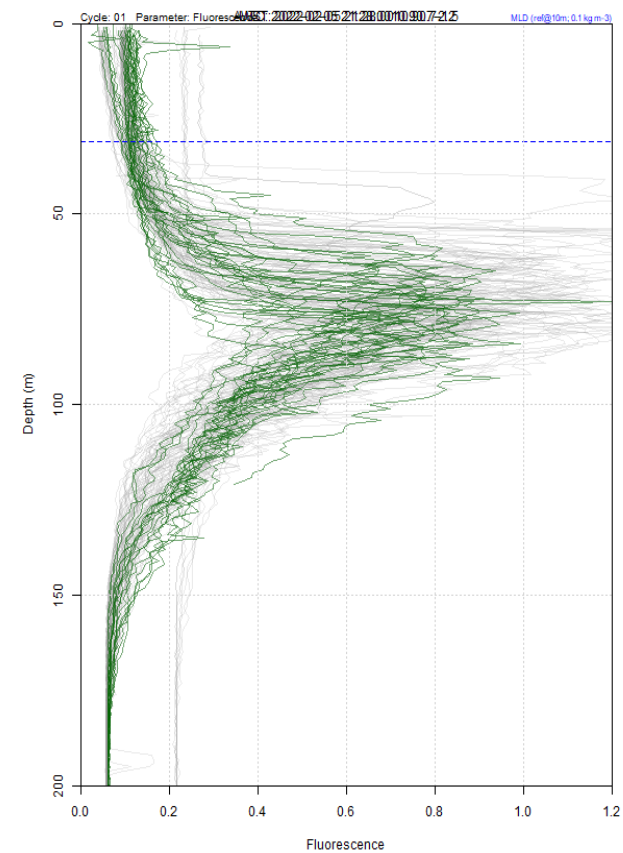
Salinity



Oxygen

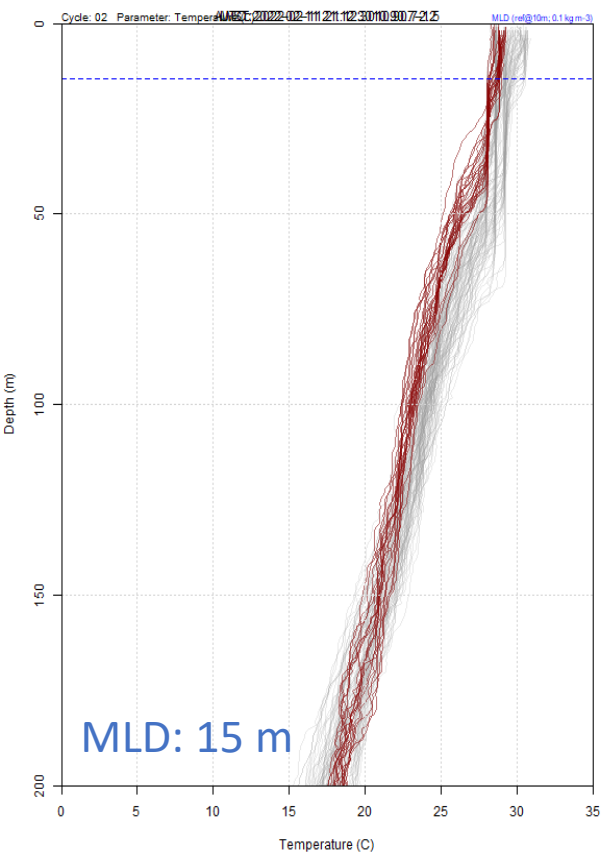


Fluorescence

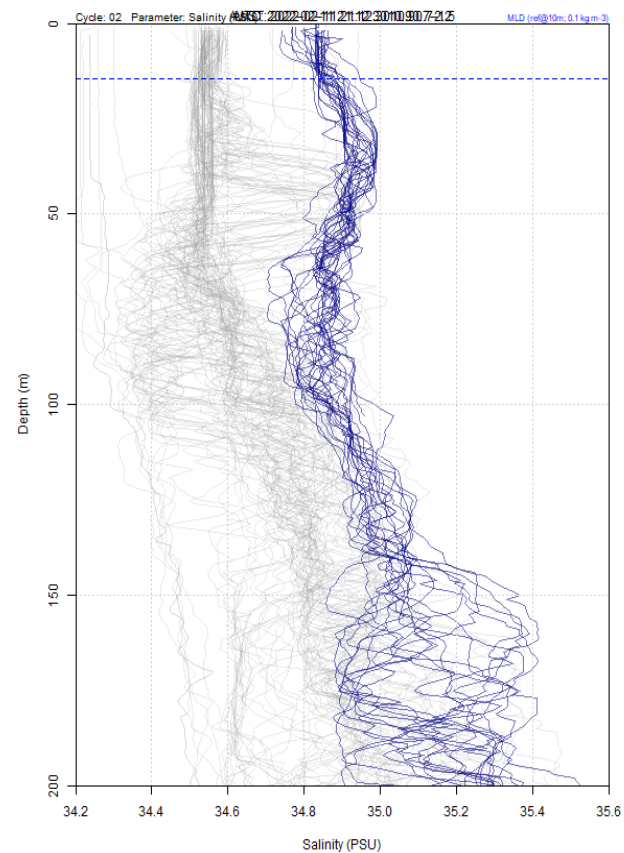


Cycle 2

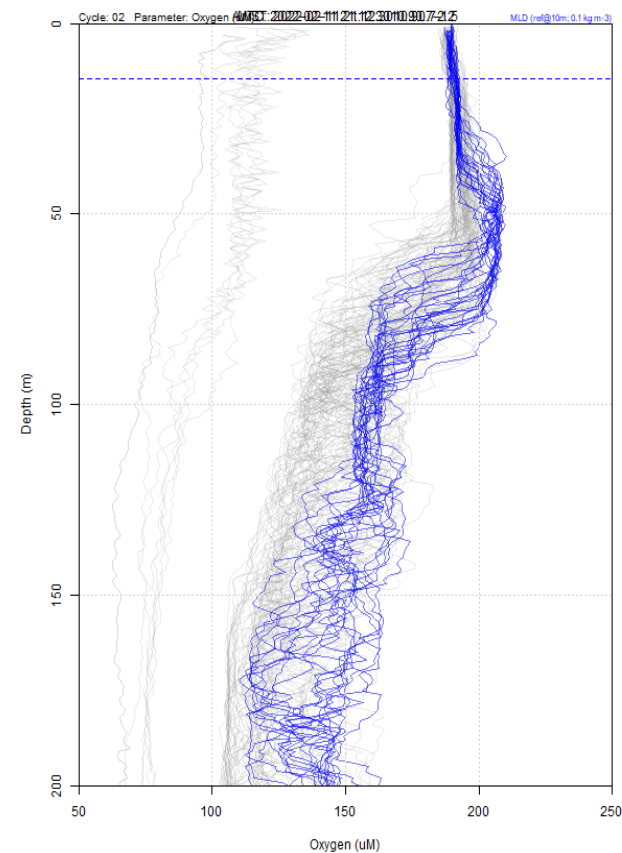
Temperature



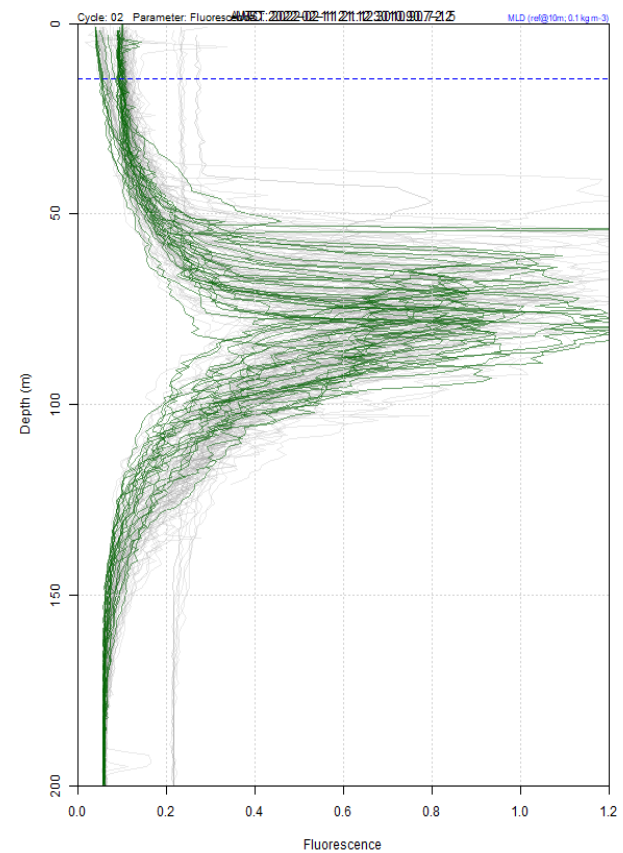
Salinity



Oxygen

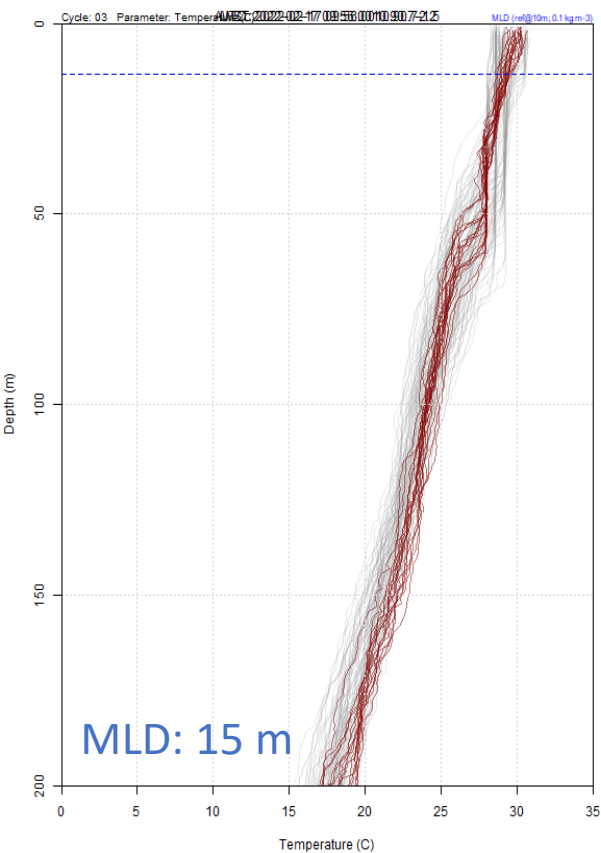


Fluorescence

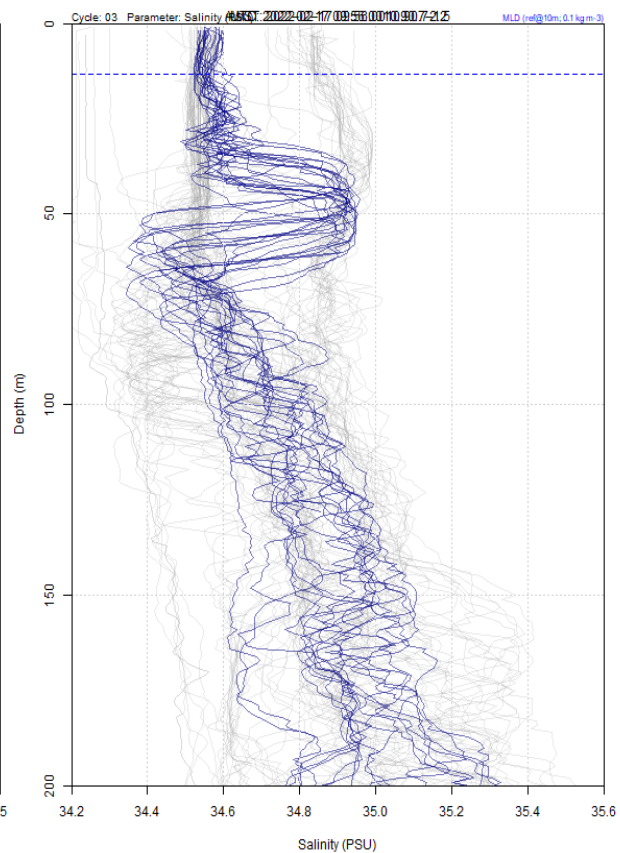


Cycle 3

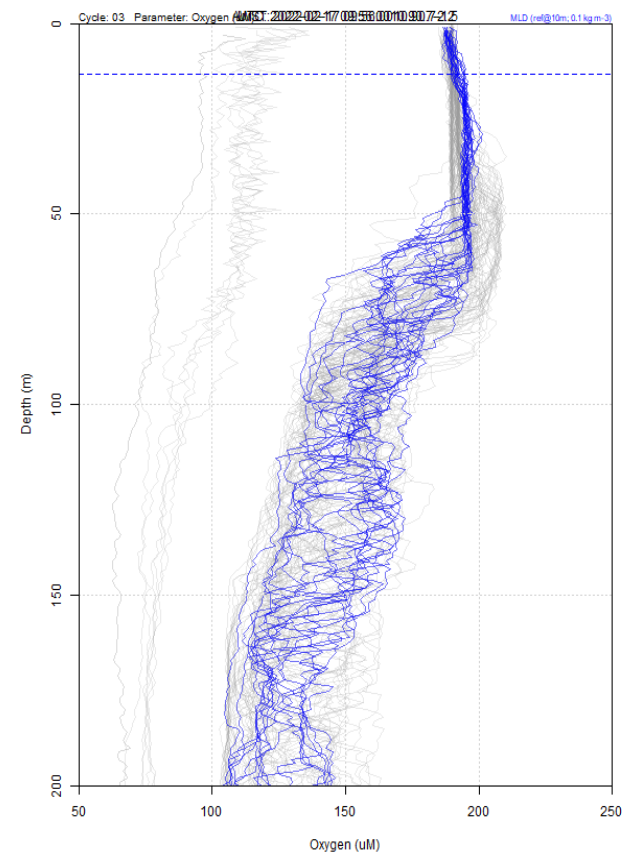
Temperature



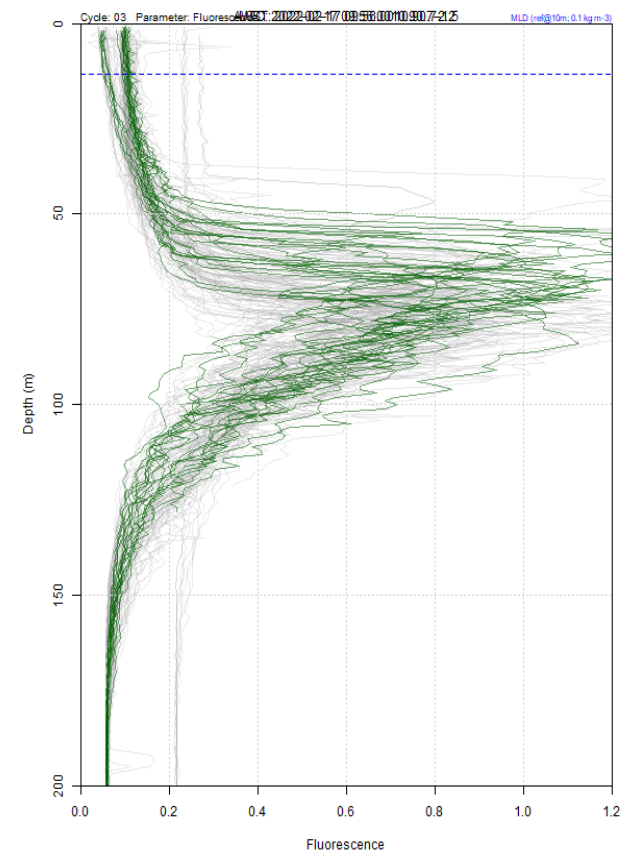
Salinity



Oxygen

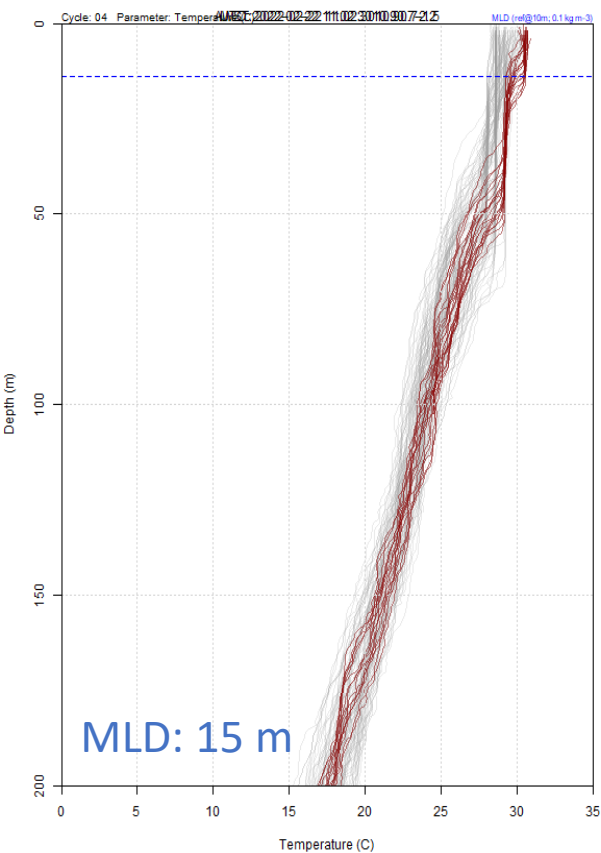


Fluorescence

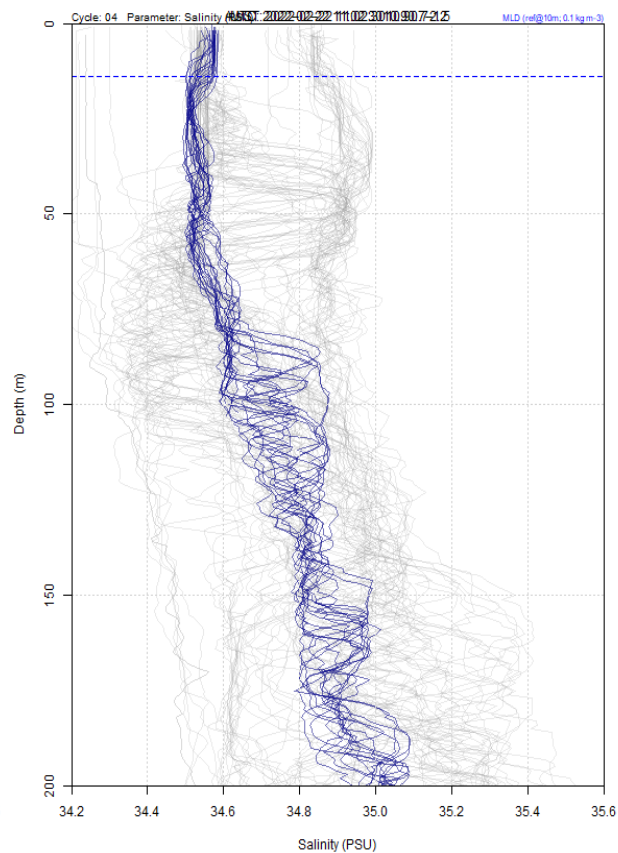


Cycle 4

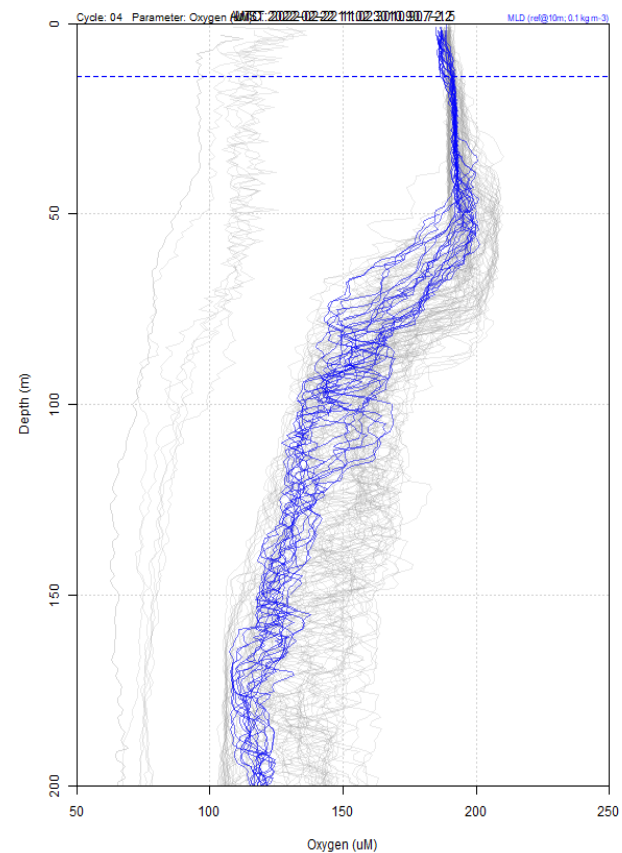
Temperature



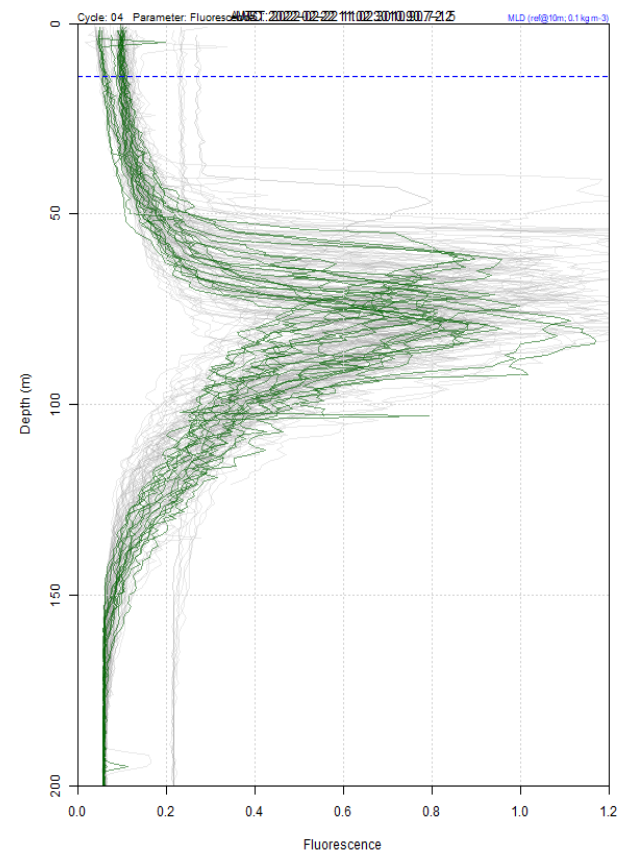
Salinity



Oxygen



Fluorescence

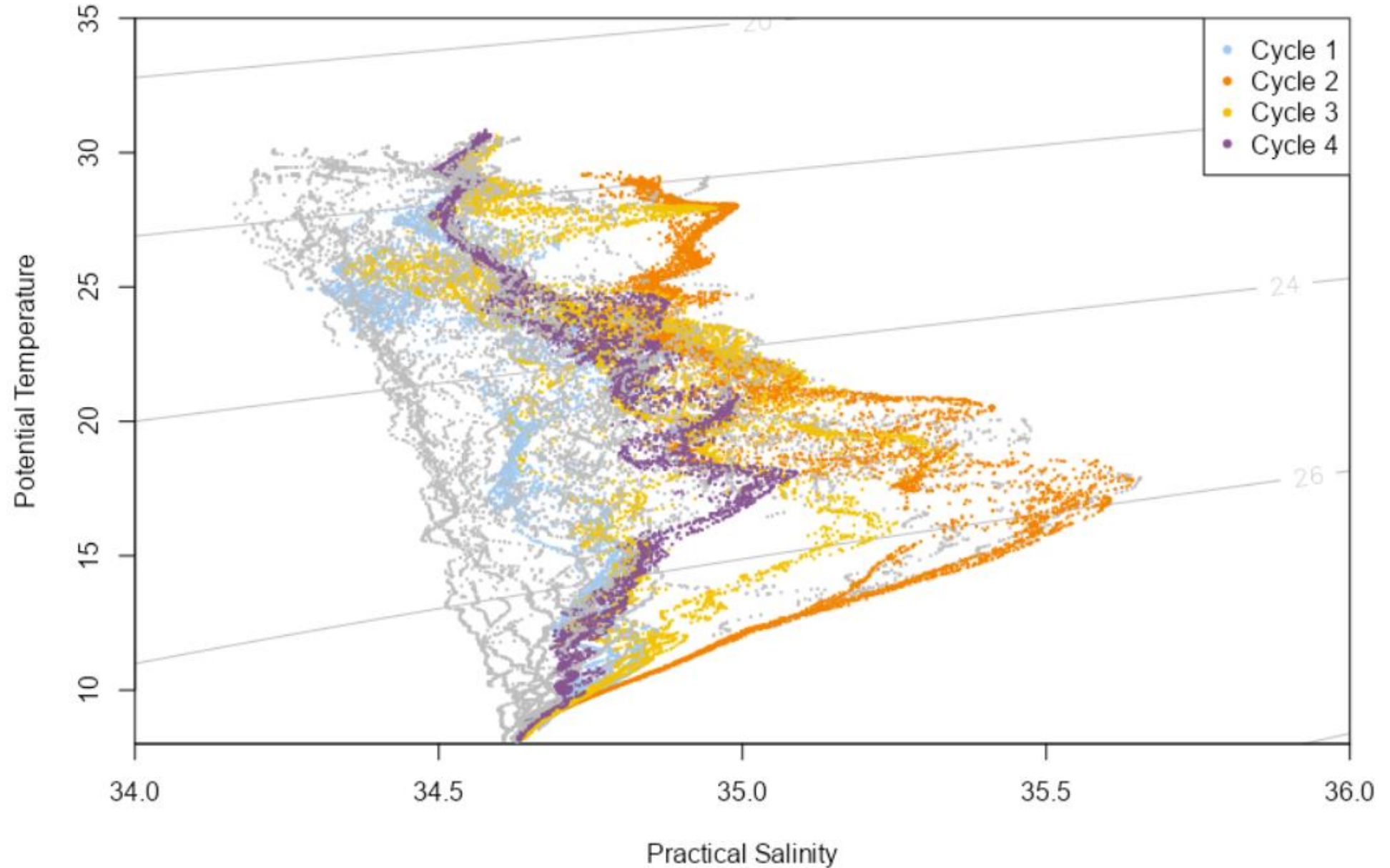


Water Masses

Looking at T and S space:

Cycle 2 stands out as saltier (surface -> deep)

Lots of subsurface structure overall

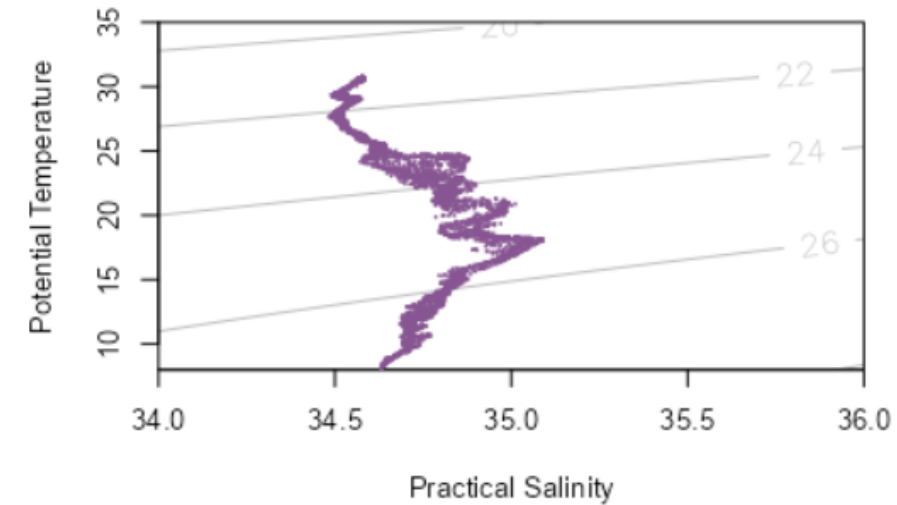
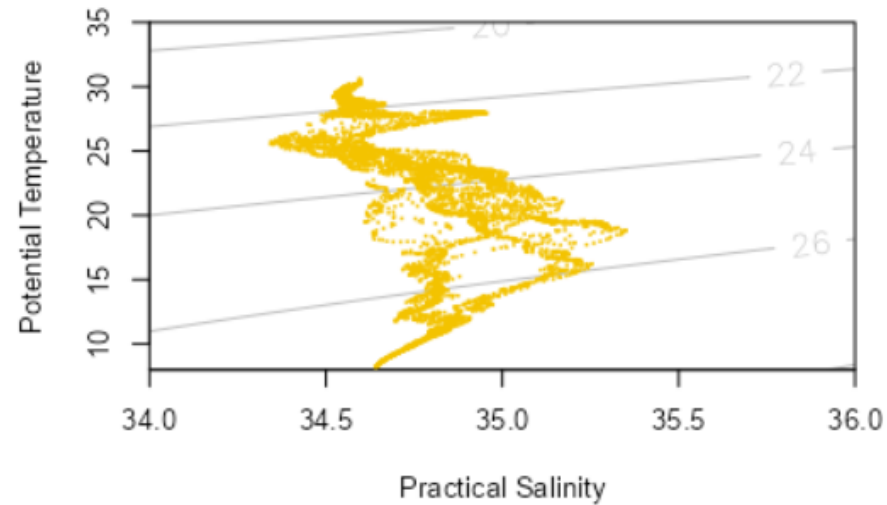
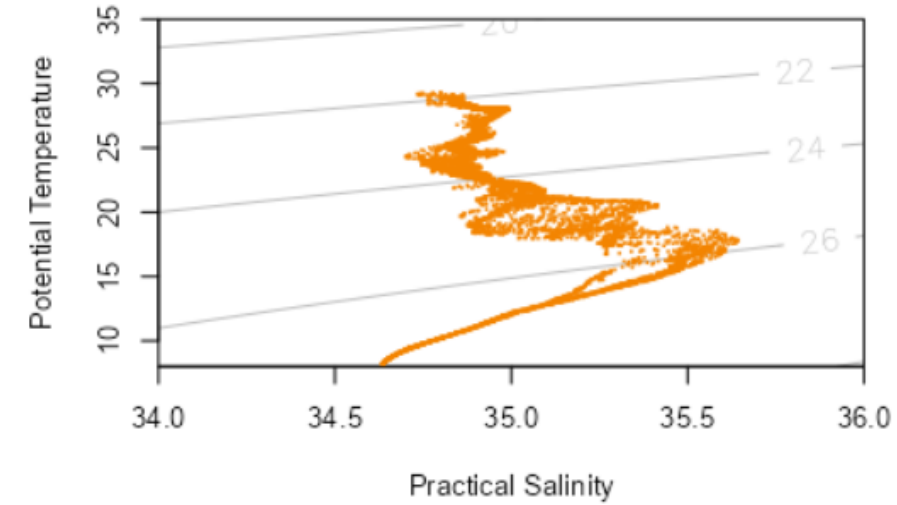
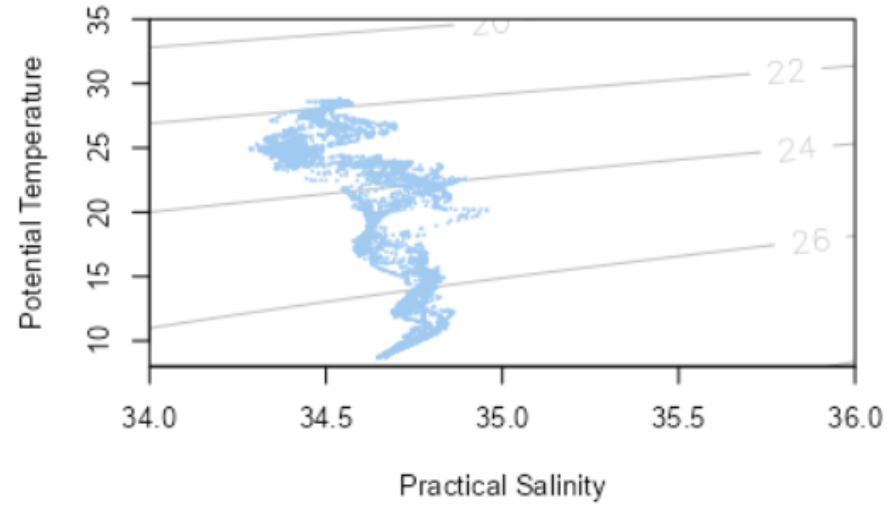
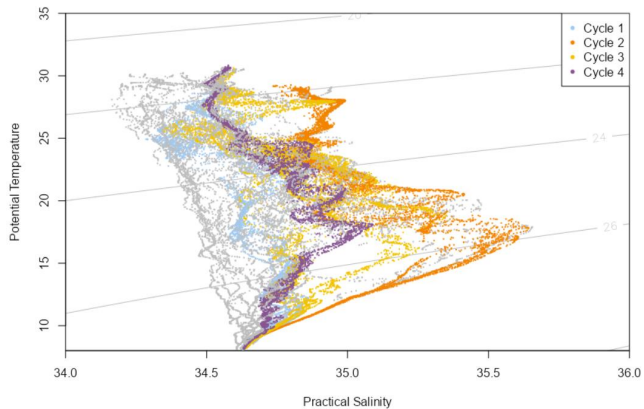


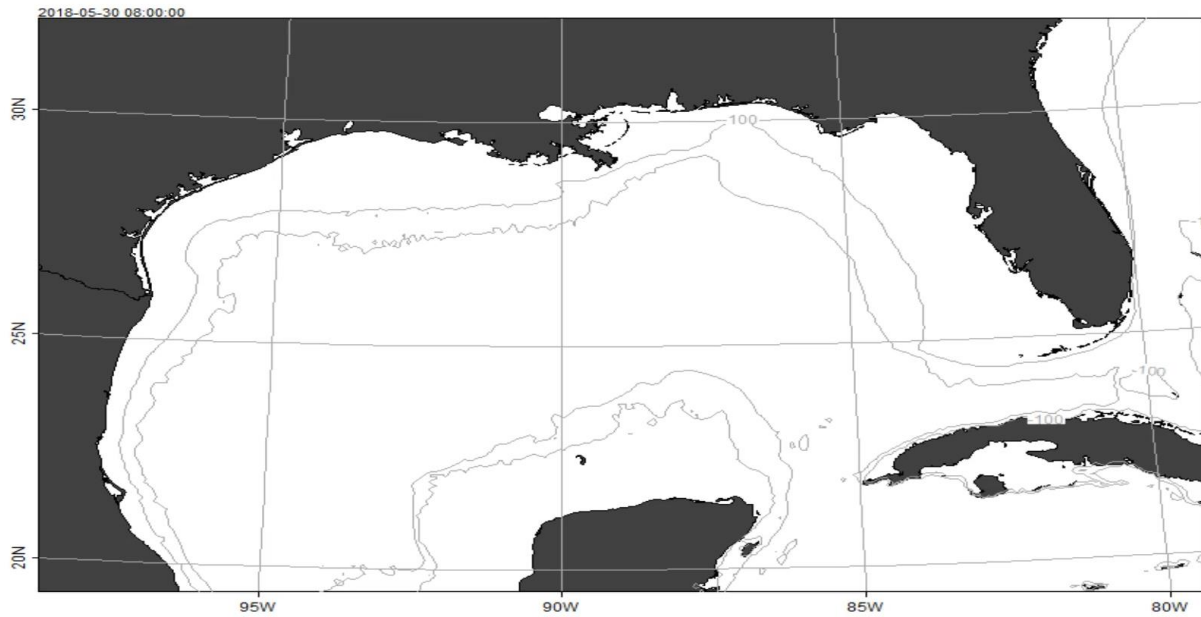
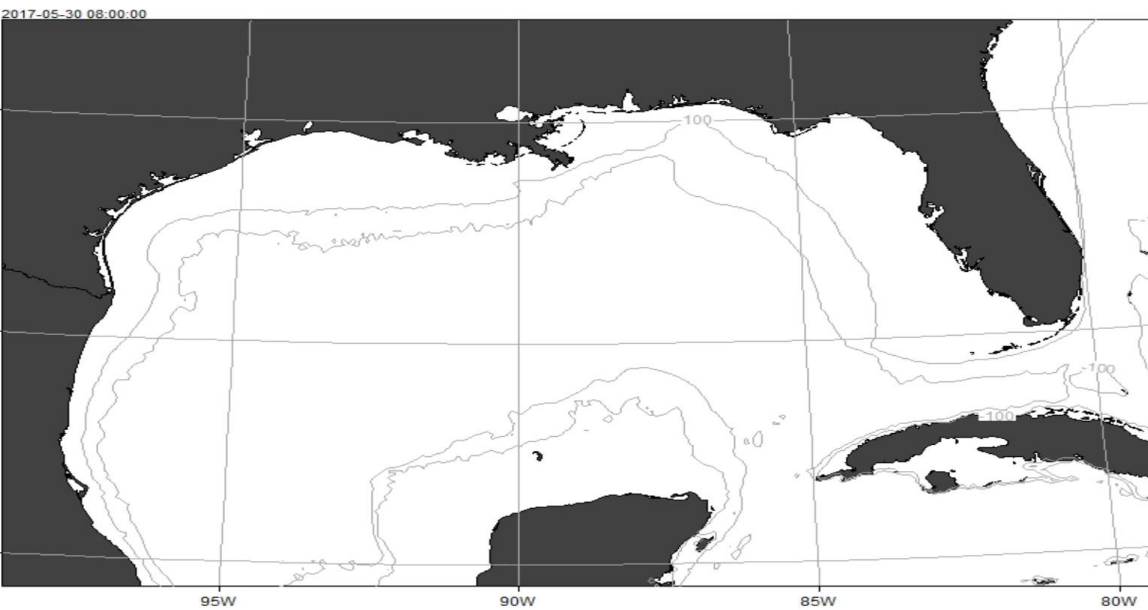
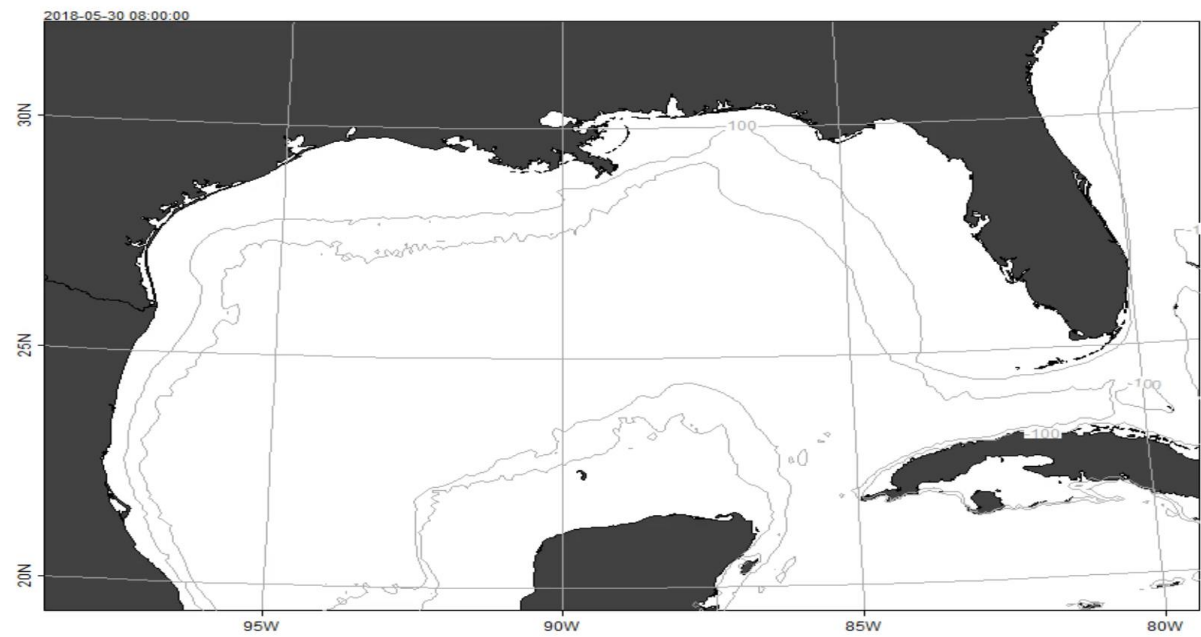
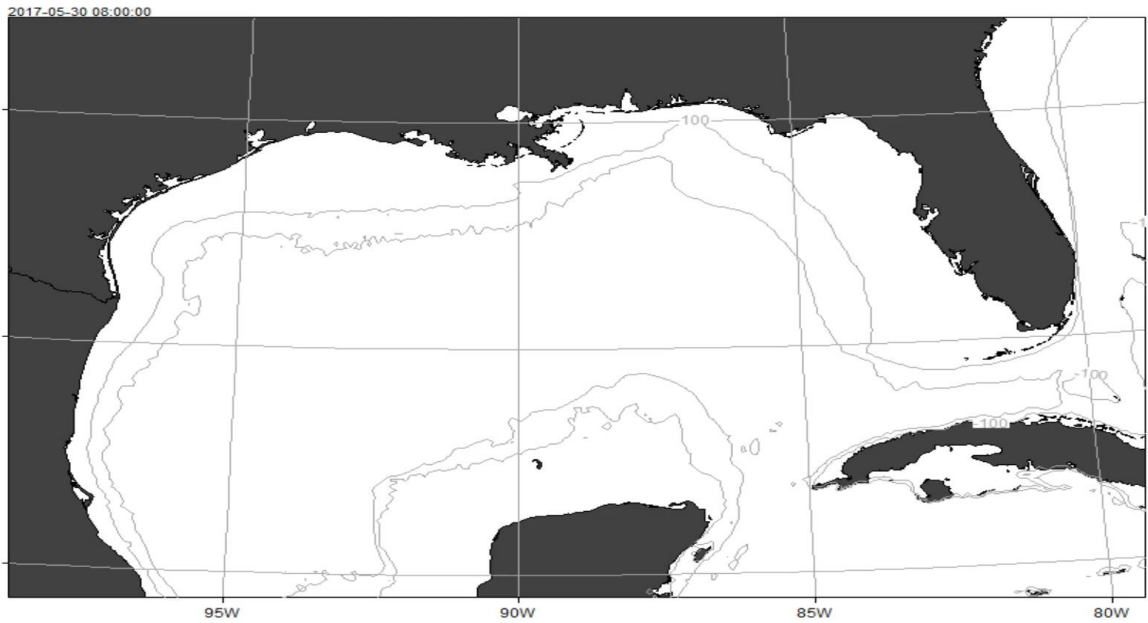
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2017

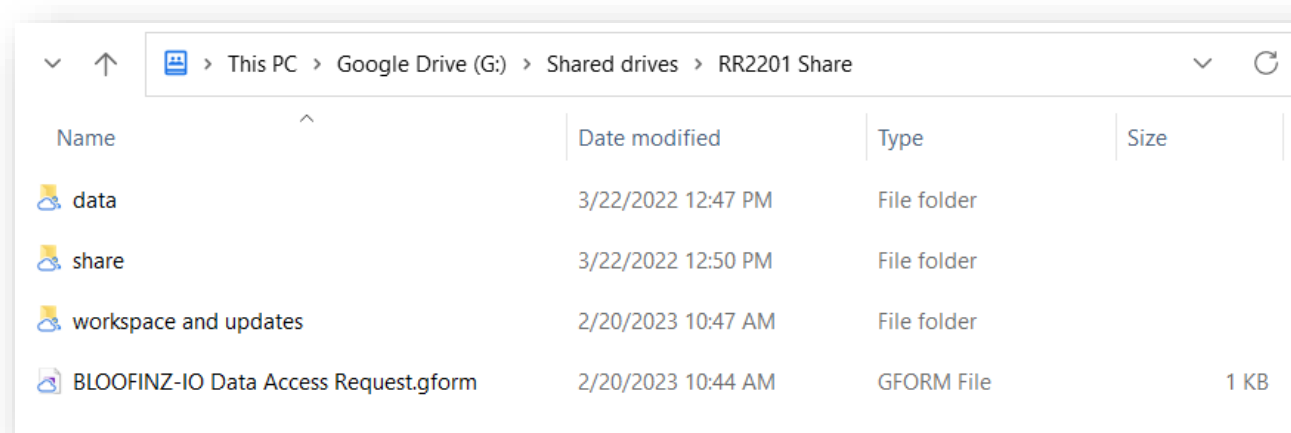
2018

Where to find it

Project specific Google Drive

Contains

1. Copy of ship data [data, at sea]
2. Copy of science share [share, at sea]
3. Collaborative workspace



Where to find it

→./RR2201 Share

→./Share

→./Kelly

→./CTD

→./Publish

Containing:

Downcast.xlsx

Downcast profiles

Allcast.xlsx

Both up and down casts

Bottle.xlsx

Bottle summary

./Plots

Plots of every CTD variable

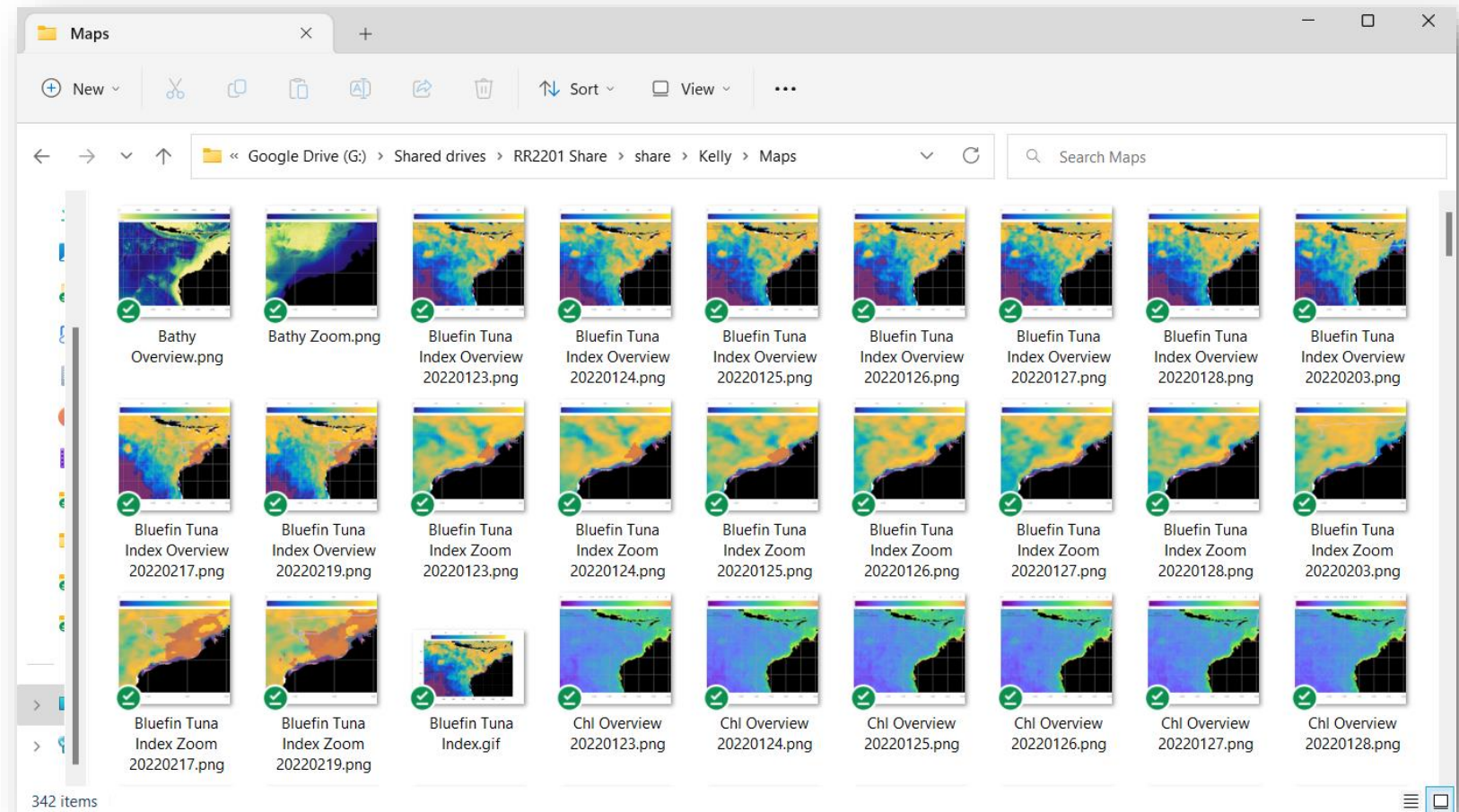
Where to find it

→ ./RR2201 Share

→ ./Share

→ ./Kelly

→ ./Maps



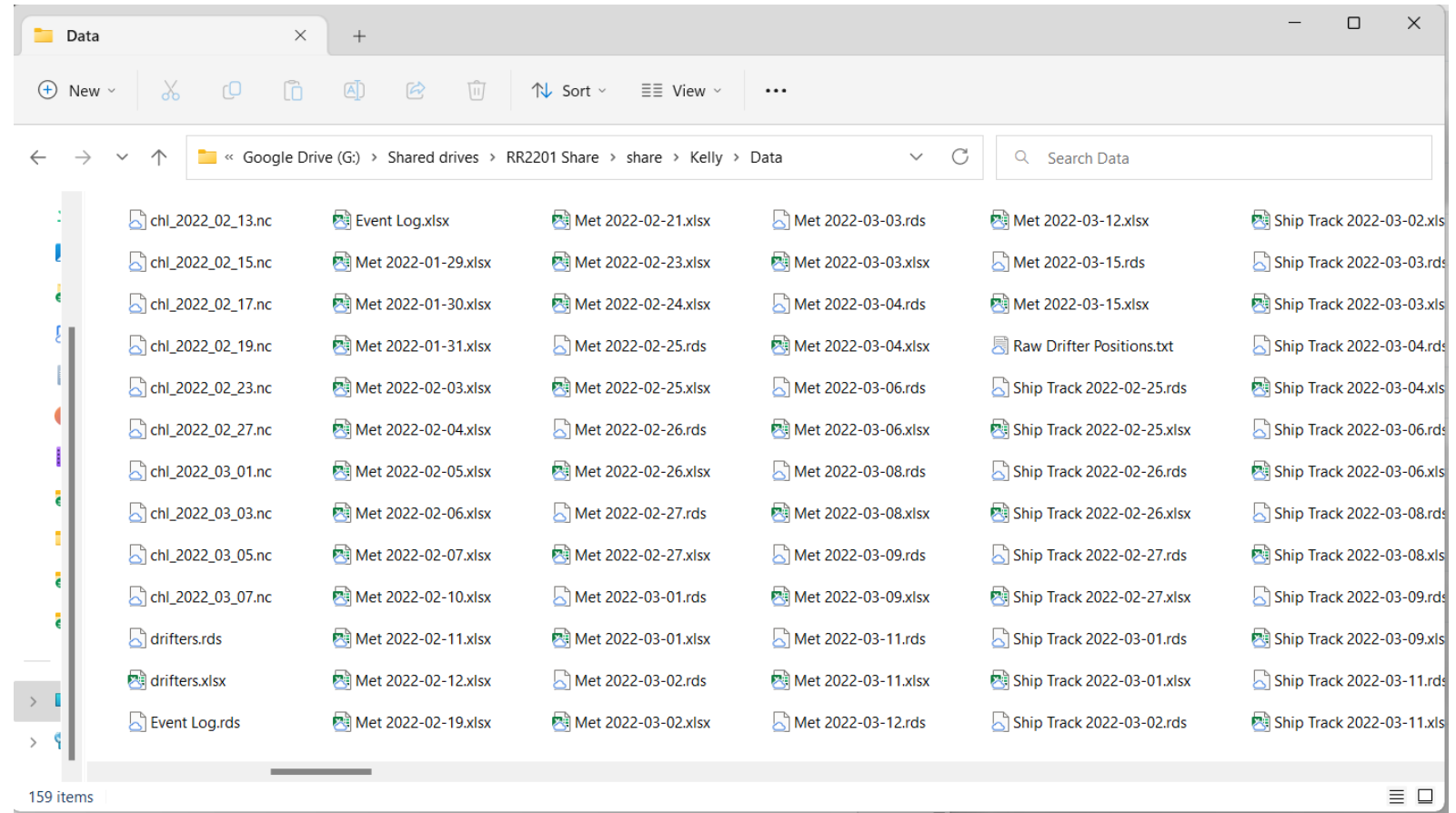
Where to find it

→ ./RR2201 Share

→ ./Share

→ ./Kelly

→ ./Data



Where do we go from here?

Have lots of data...

→ How do we want it organized?

→ What are our questions and tools?

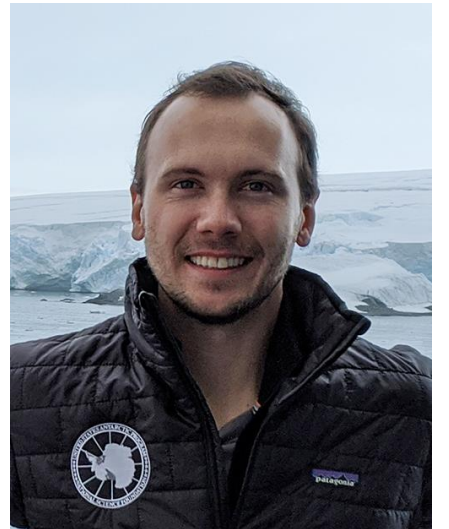
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Contact me:



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