

# NOAA West Watch Update

## 27 February 2024

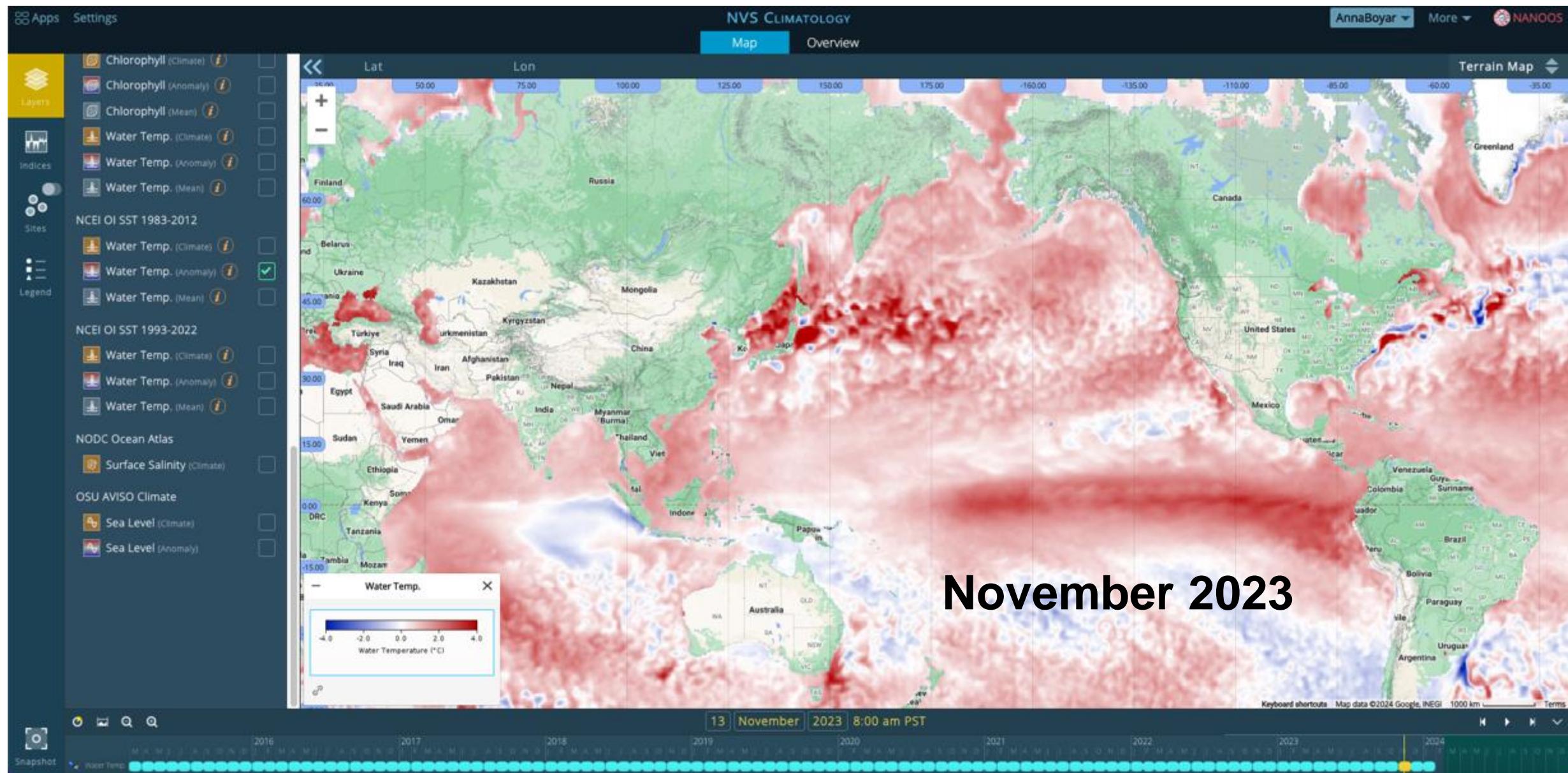
**NANOOS Update**

*Jan Newton, on behalf of many*

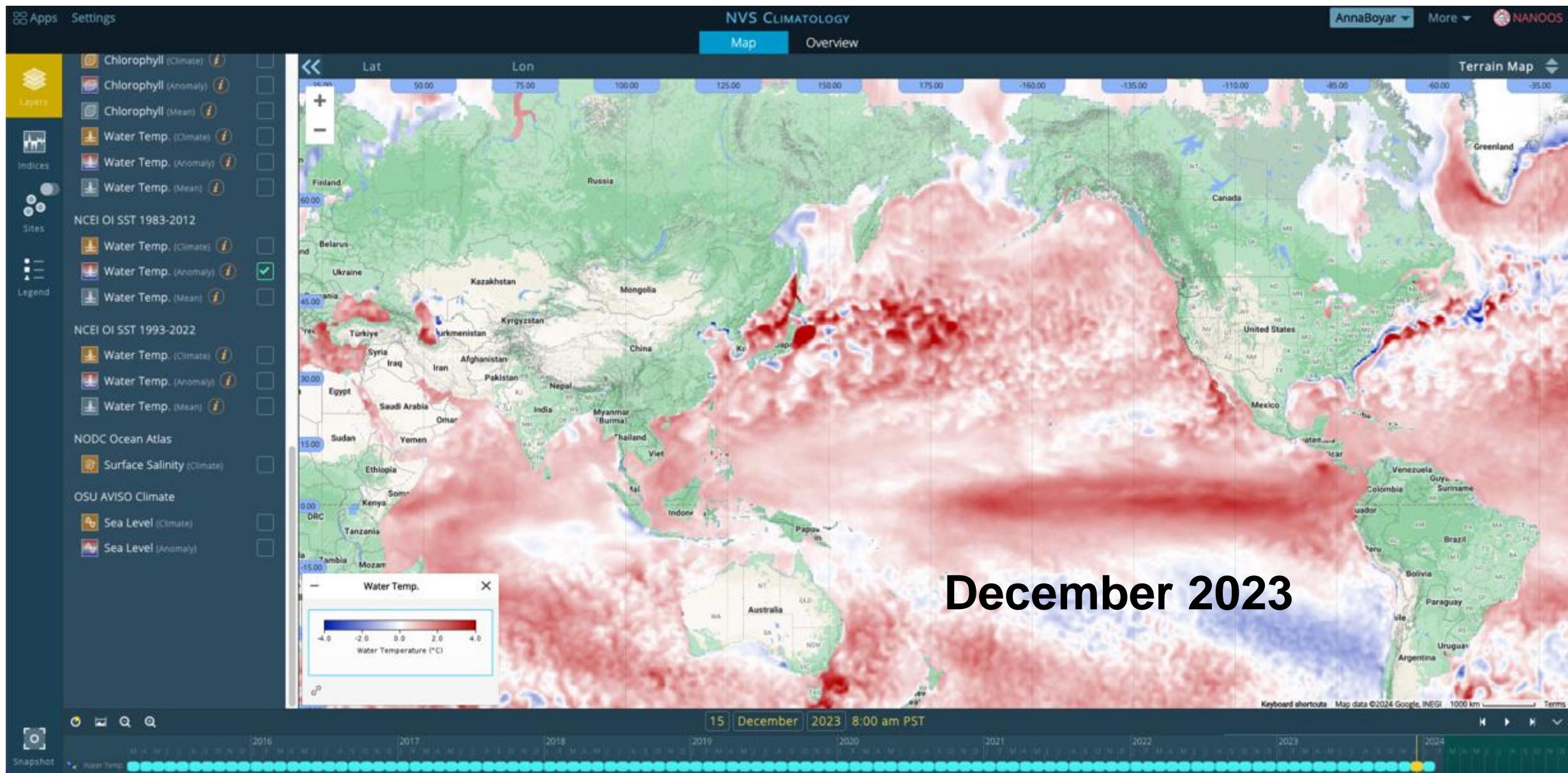
[www.nanoos.org](http://www.nanoos.org)



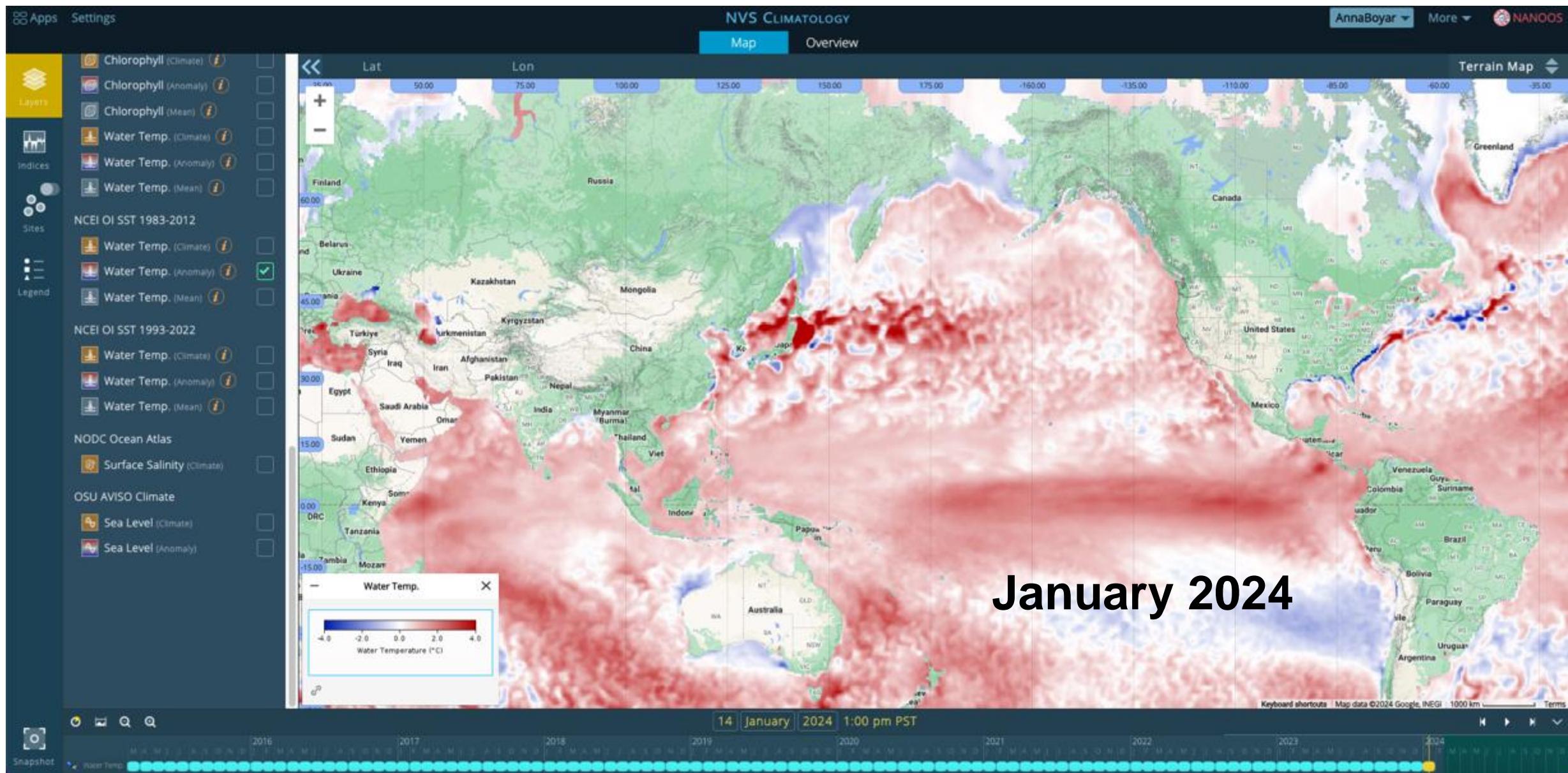
NCEI OI SST 1983-2012



NCEI OI SST 1983-2012



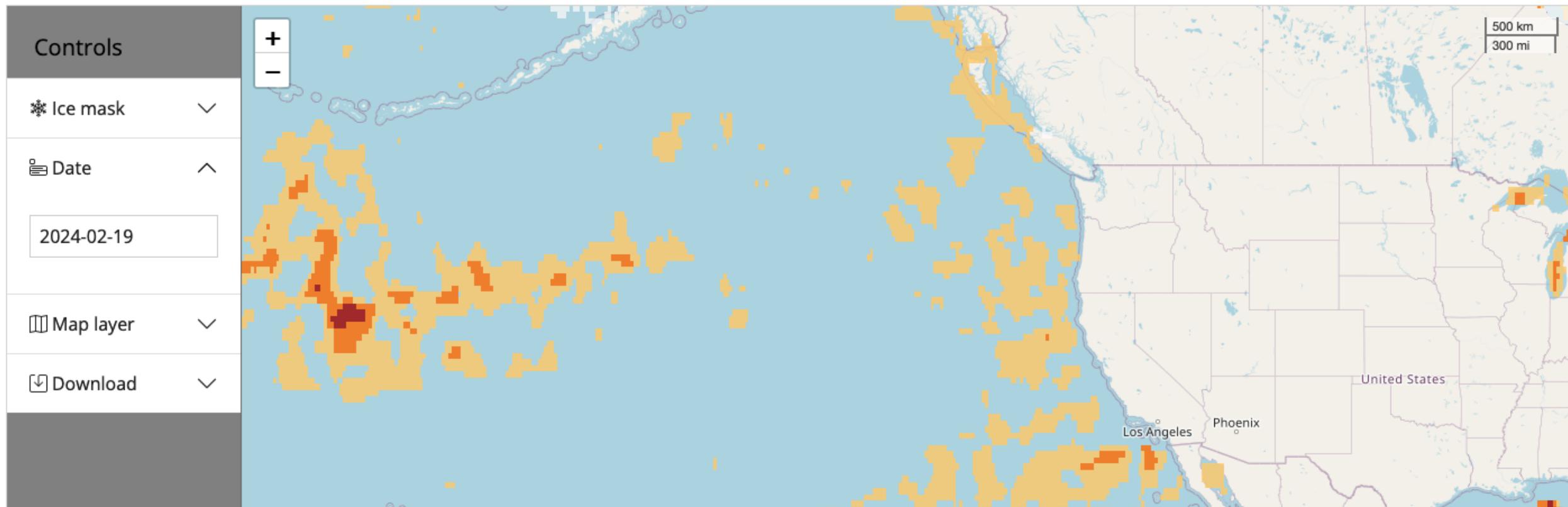
NCEI OI SST 1983-2012

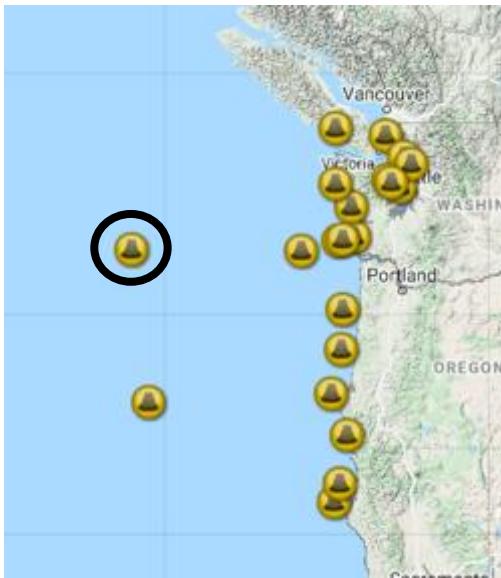


# MARINE HEATWAVES

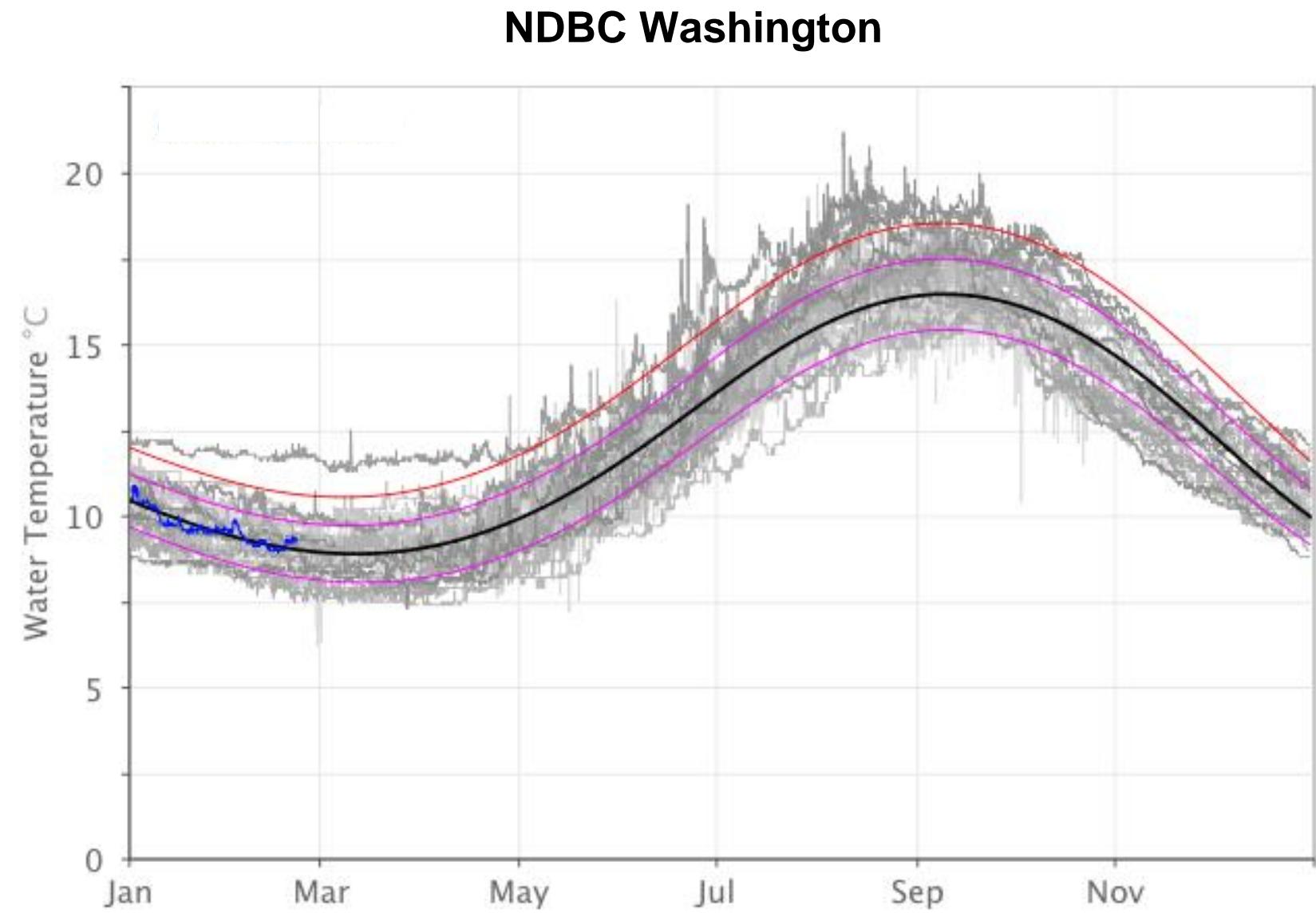
## International Working Group

HOME MHW OVERVIEW MHW IMPACTS TRACKER WORKSHOPS AND CONFERENCES



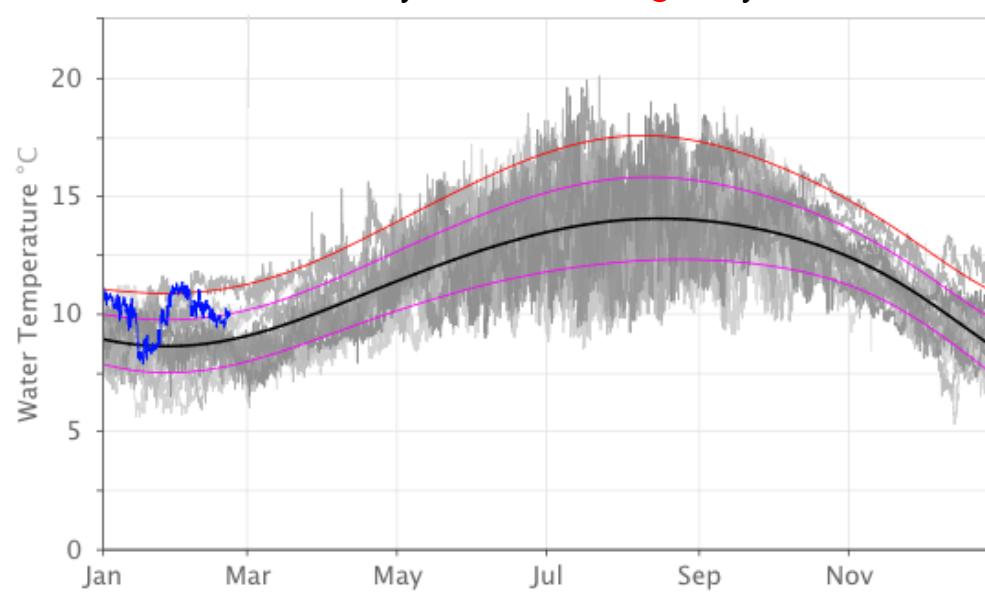


- Seasonal Cycle  
n=45 Yrs
- -1 STD
- +1 STD
- +2 STD
- 2024



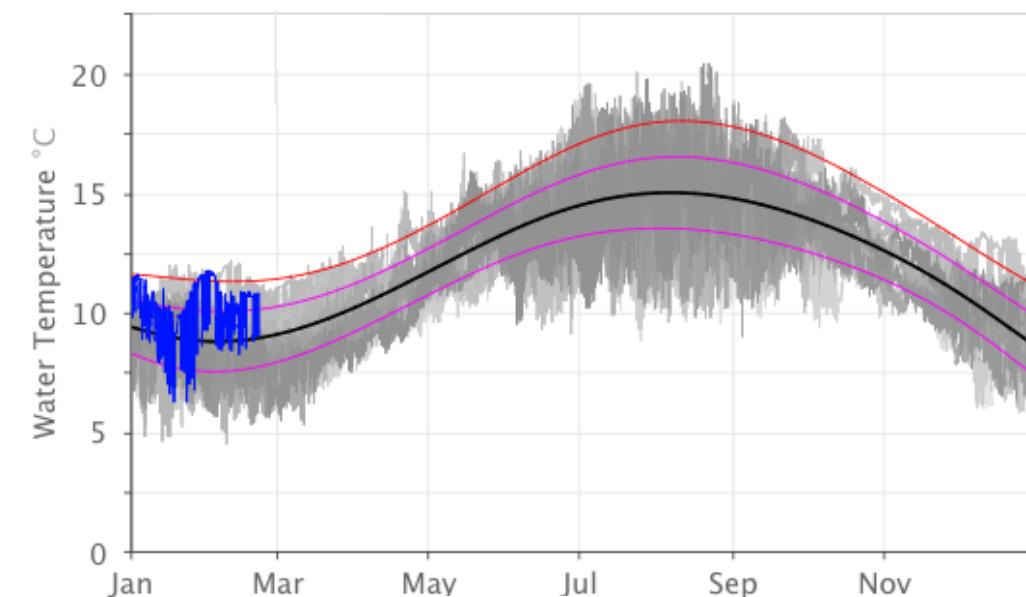
CDIP Grays Harbor

● 17 yrs



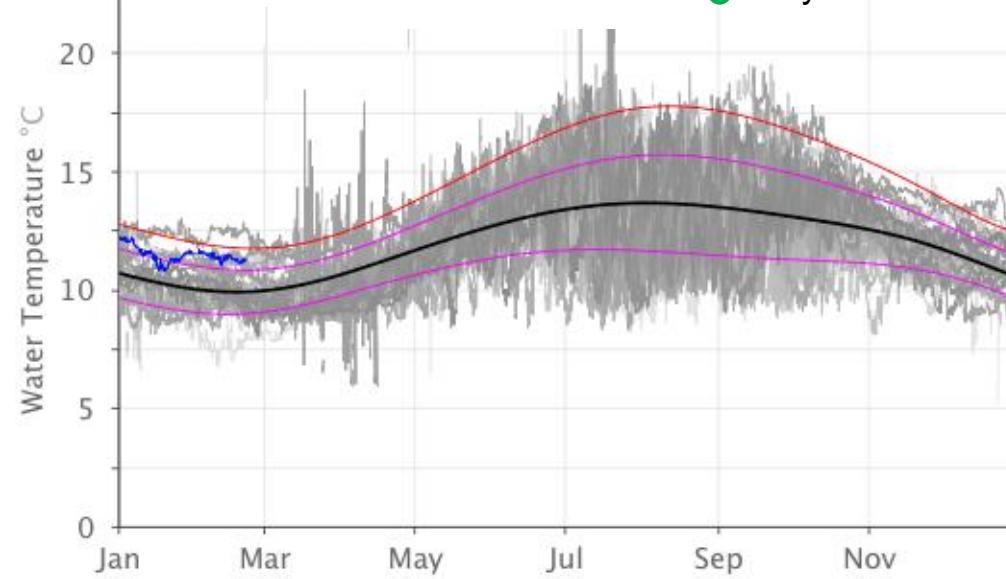
CDIP Clatsop Spit

● 12 yrs



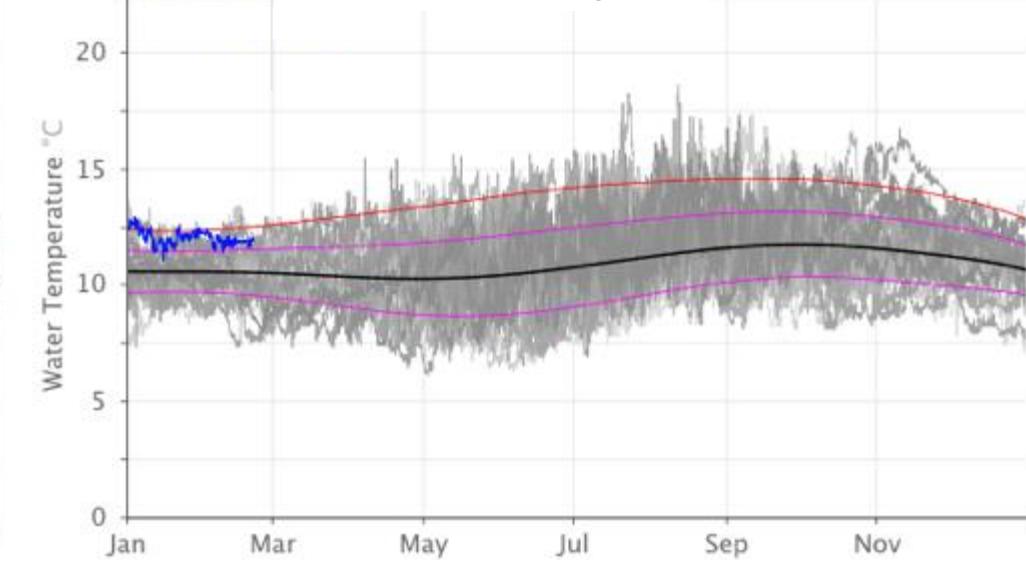
NDBC Stonewall Bank

● 34 yrs

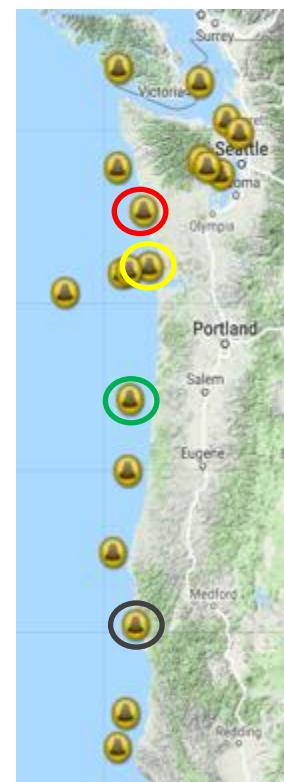


NDBC St. Georges

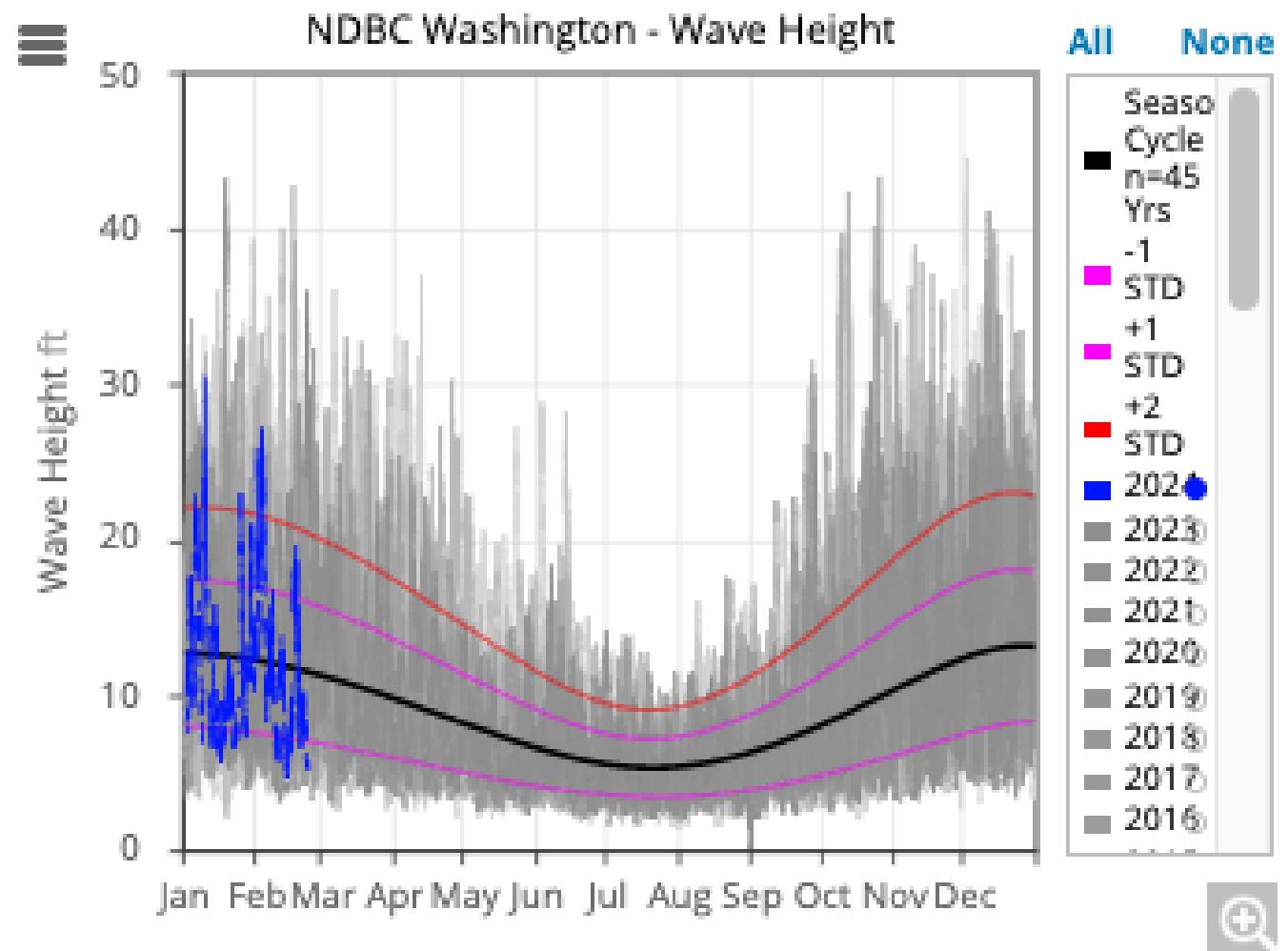
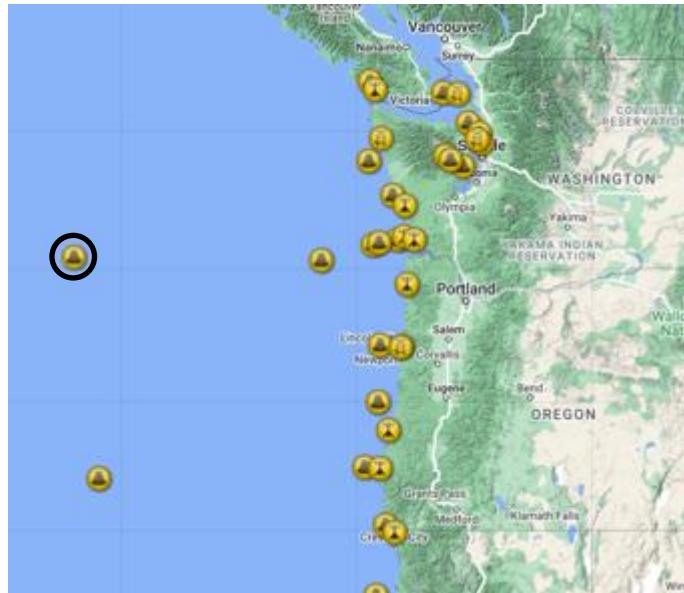
● 38 yrs



- Seasonal Cycle
- -1 STD
- +1 STD
- +2 STD
- 2023

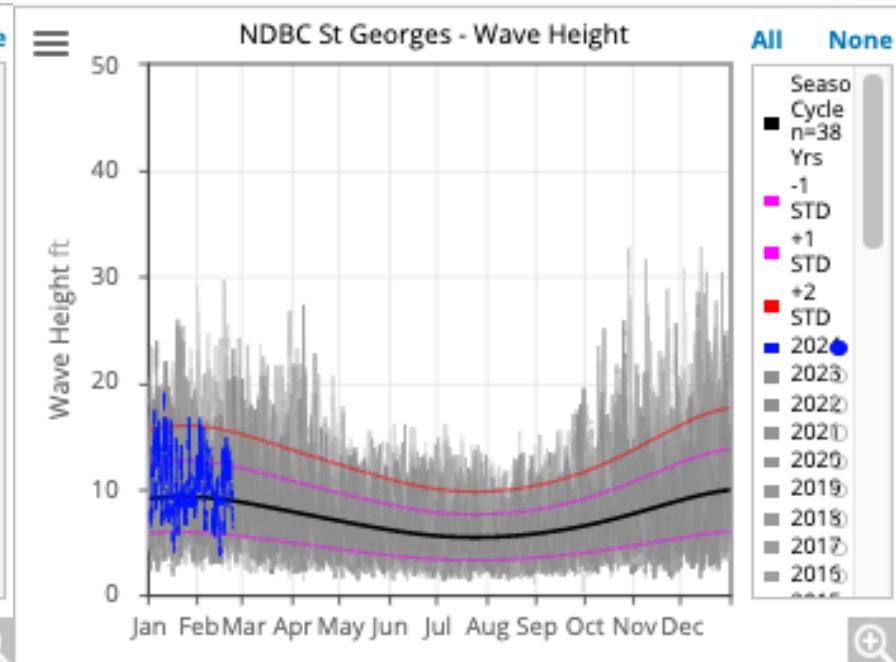
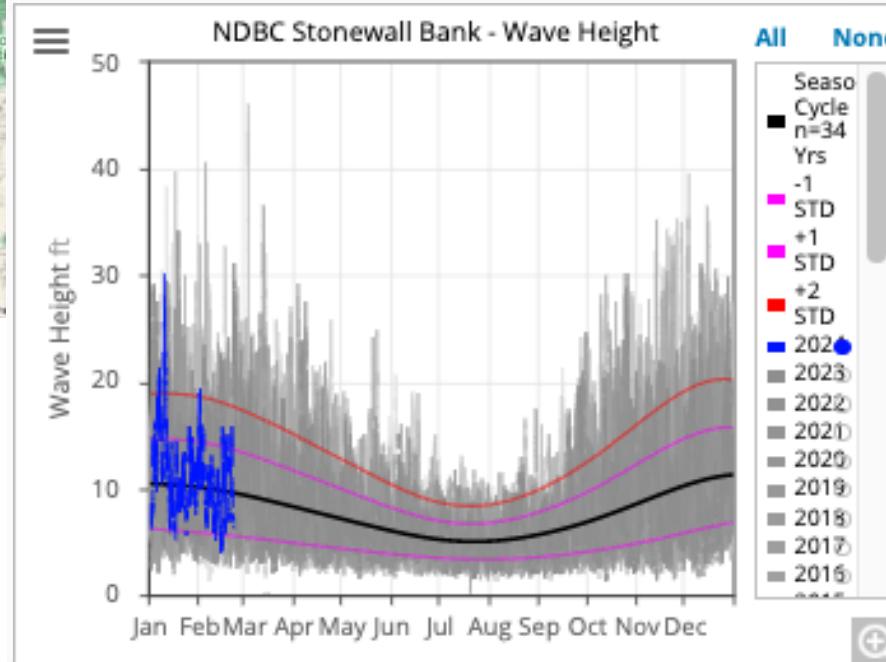
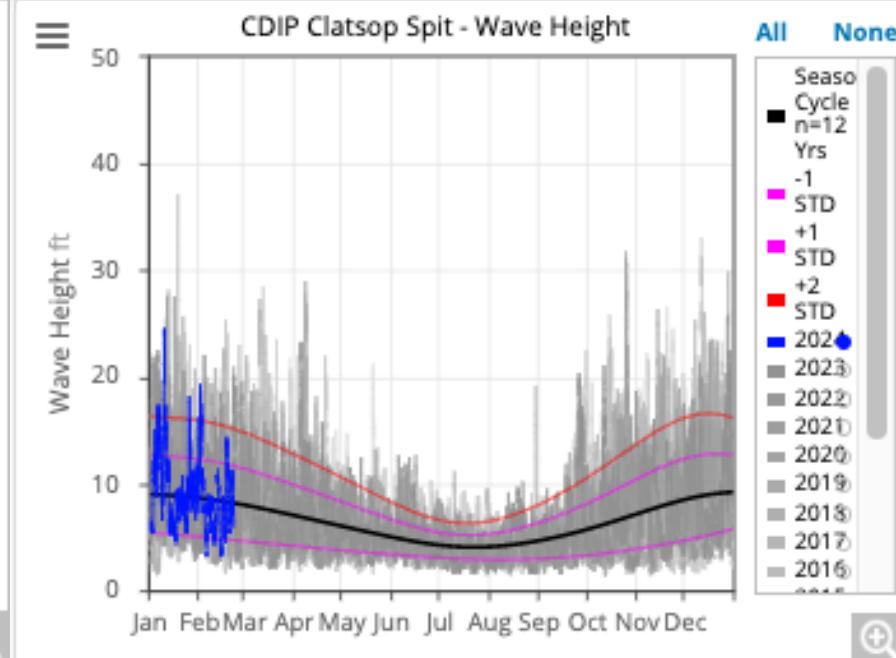
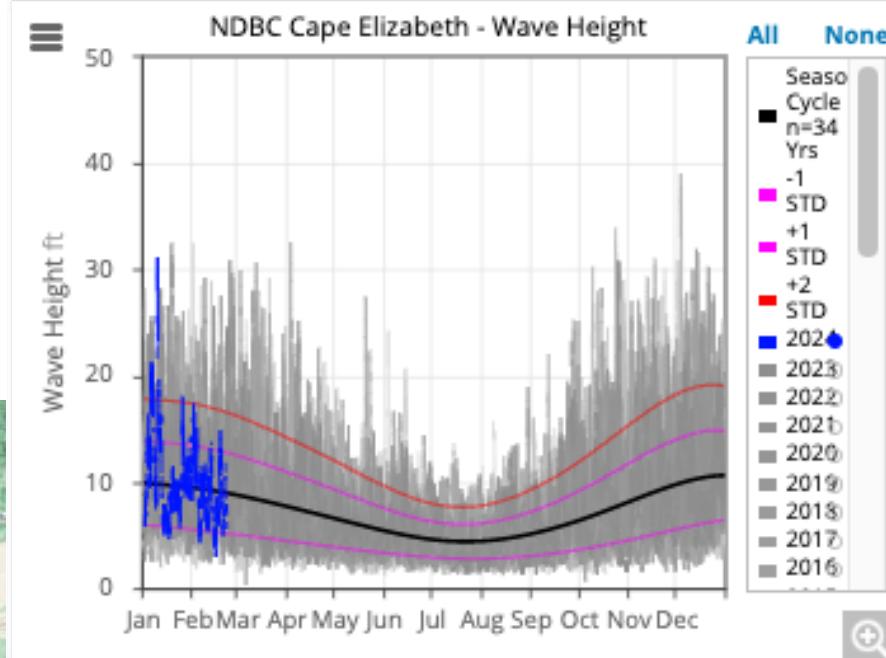


# Waves



January 13–16, 2024 North American winter storm

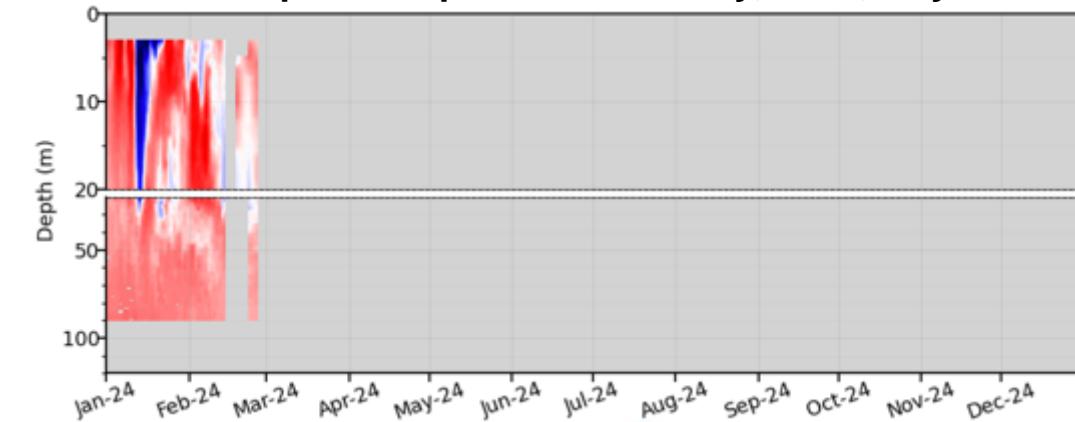
# Waves



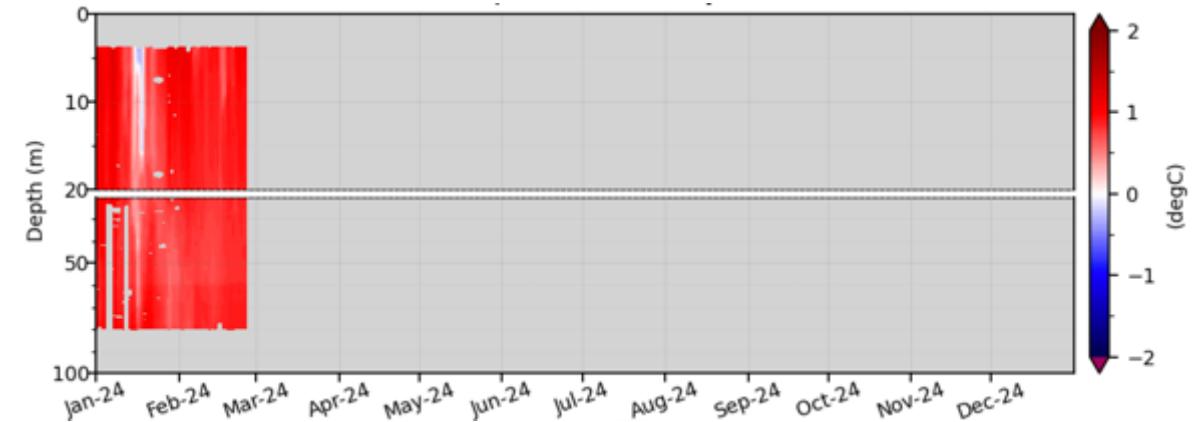
# Temperature Anomalies

# Puget Sound Profiling Buoys

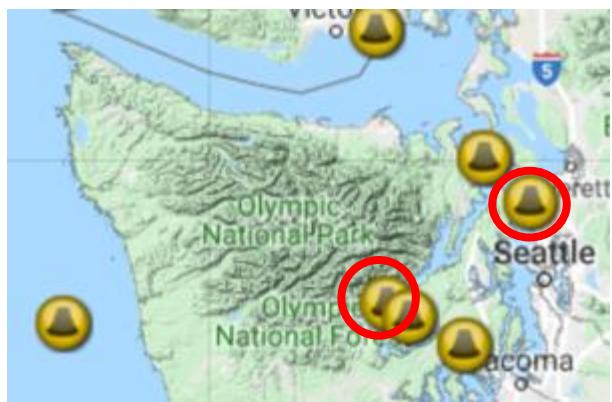
Hoodsport Temperature Anomaly, 2023, 16 years



Point Wells Temperature Anomaly, 2023, 11 years



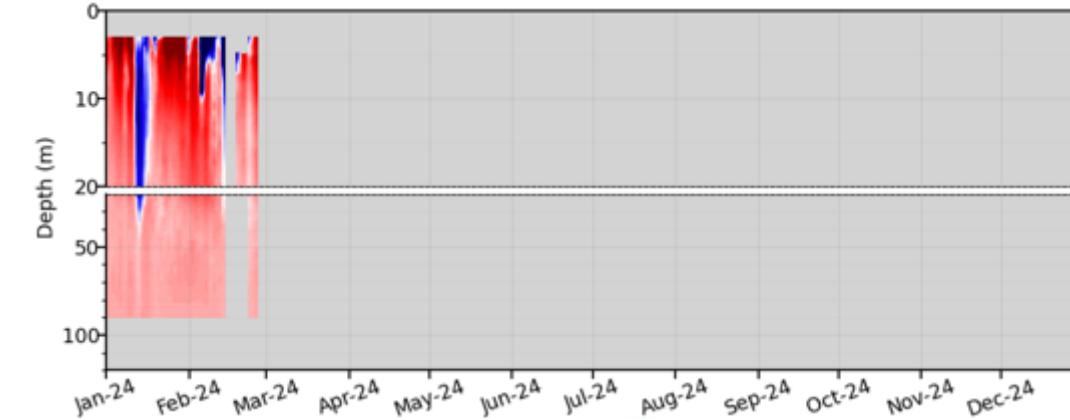
January 13–16, 2024 North American winter storm



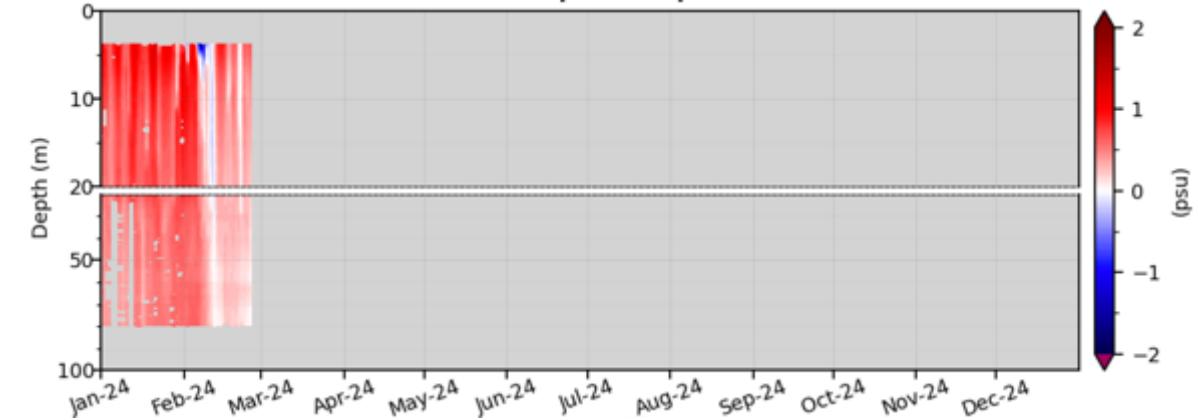
# Salinity Anomalies

# Puget Sound Profiling Buoys

Hoodsport Salinity Anomaly, 2023, 16 years



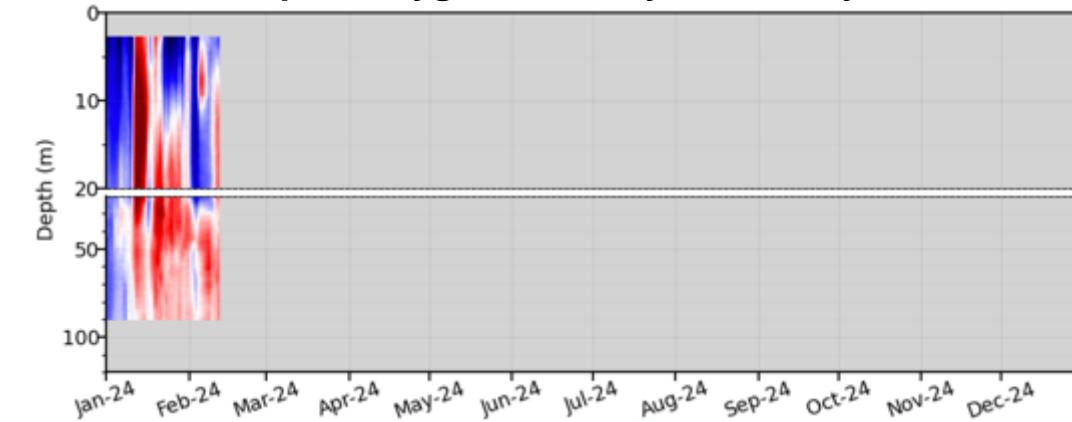
Point Wells Salinity Anomaly, 2023, 11 years



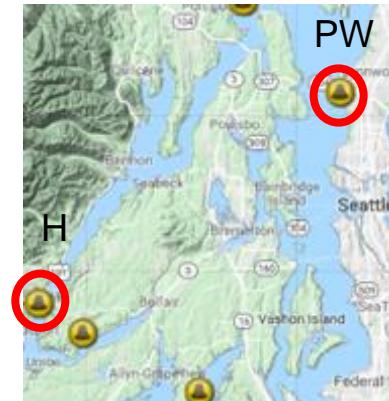
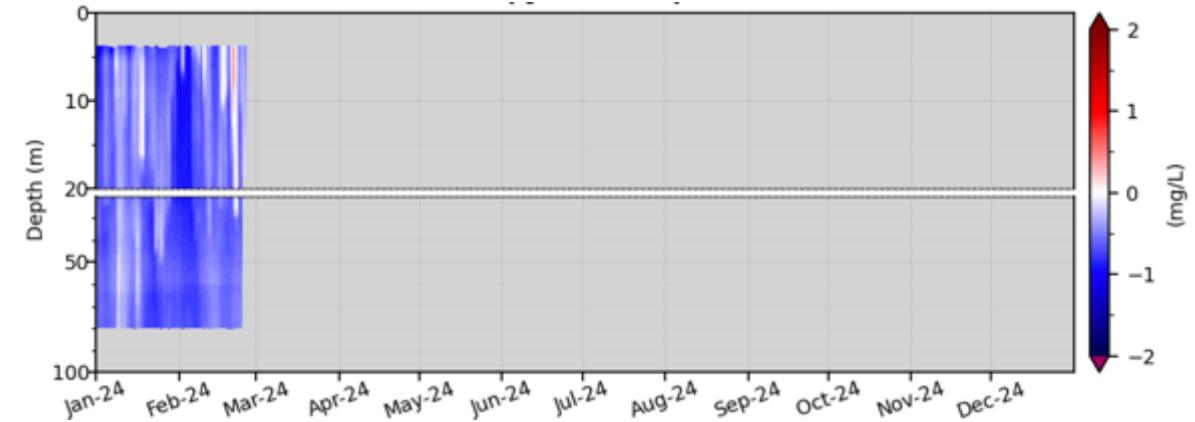
# Oxygen Anomalies

# Puget Sound Profiling Buoys

Hoodsport Oxygen Anomaly, 2023, 16 years



Point Wells Oxygen Anomaly, 2023, 11 years



## November 2023

OSU MODIS 2002-2022



## December 2023

OSU MODIS 2002-2022

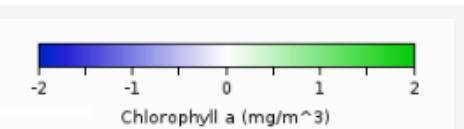


## January 2024

OSU MODIS 2002-2022



Chlorophyll



# To summarize:

## Coastal conditions

- El Niño persists; heat anomaly in NE Pacific small and diffuse; not a strong signal; transition predicted.
- Offshore WA NDBC coastal buoy shows average T; inshore buoys indicate very high variation, warm, cool, warm pattern.

## Waves

- Storm events Jan and Feb, may explain cooling.

## Puget Sound

- Temperature and salinity anomalies continue warm and salty.
- Mid-January event, likely storm with strong cool, fresh, high oxygen conditions.

## Chlorophyll & HABs

- Satellite shows lower than average ocean color values in Dec-Jan.
- Domoic acid not reported as a factor now.

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