

Inner Shelf Chlorophyll Response to Upwelling

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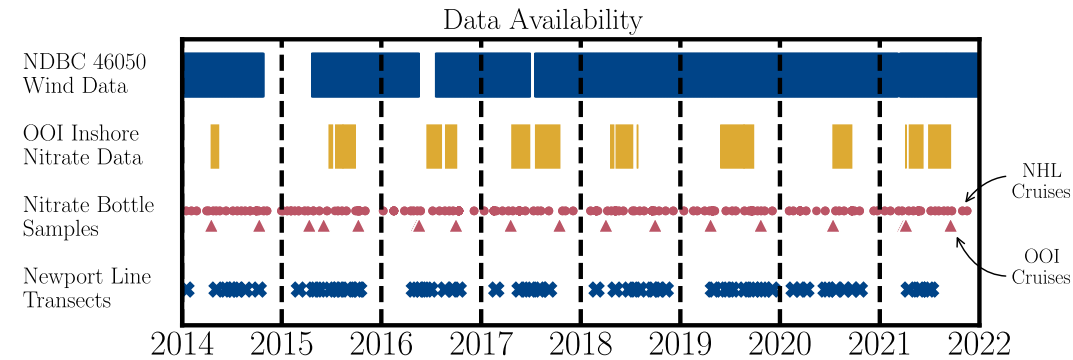
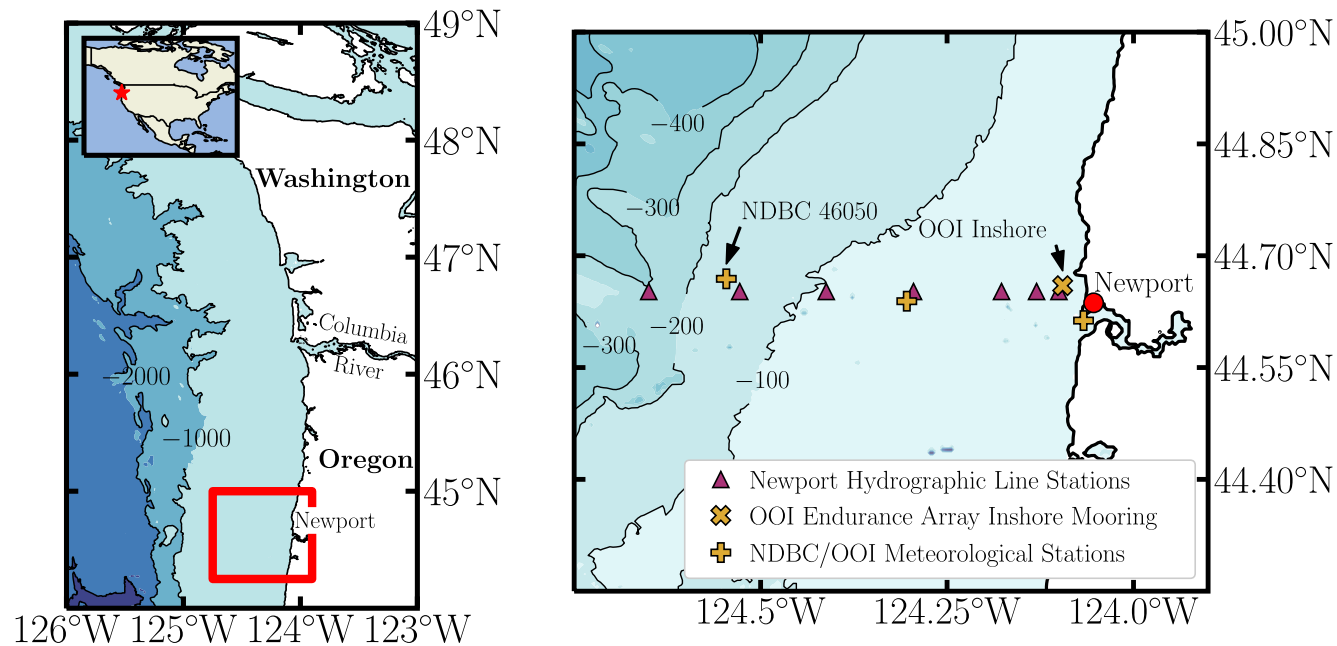


Oregon State
University



Background: A wave crashing over the Yaquina Bay bar off the coast of Newport, Oregon, from Haxel, J. (2016), Local Waters, *Ocean Acoustics Program*, <https://blogs.oregonstate.edu/acoustics/2016/02/18/local-waters/>

Research Area



OOI
Endurance
Array Data
CE01ISSP-SP001-
06-NUTNRJ000

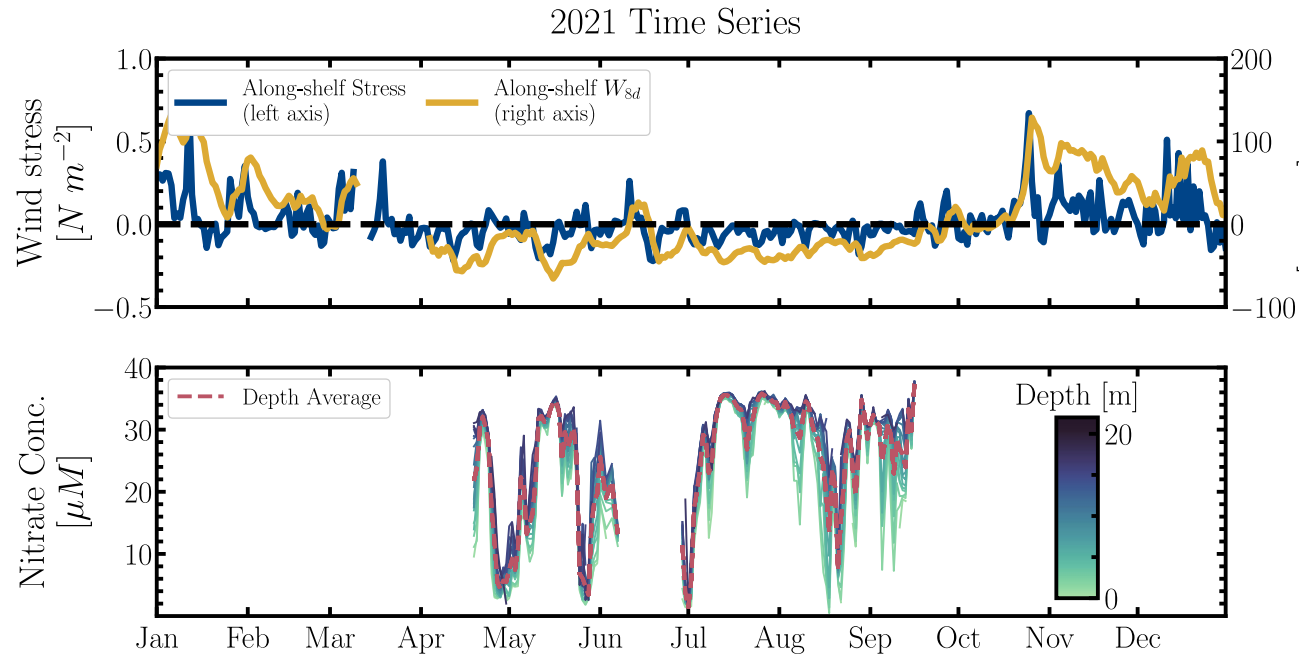


Newport
Hydrographic Line
(NHL) Gridded
Sections⁴

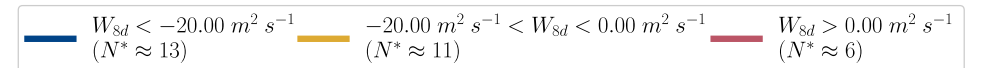
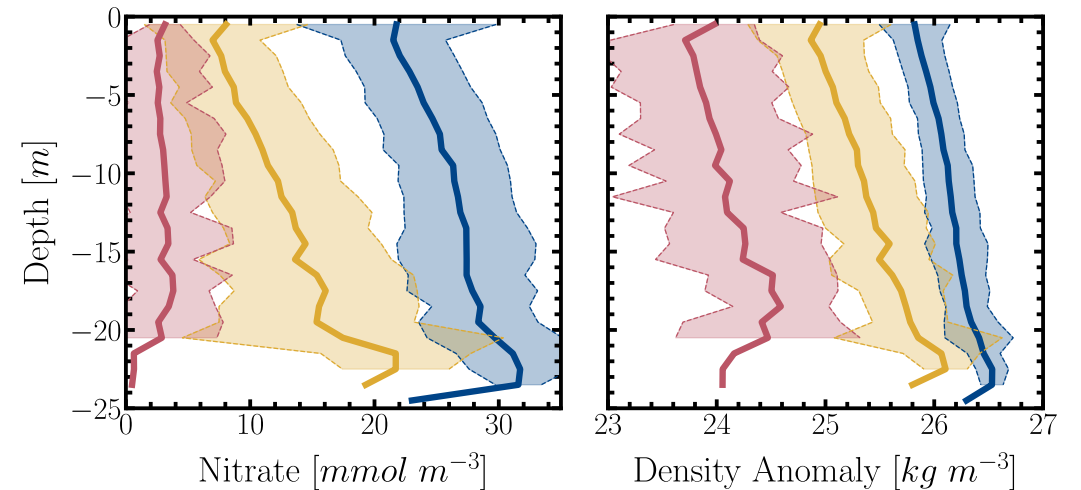
Risien, C. M., Fewings, M. R., Fisher, J. L., Peterson, J. O., & Morgan, C. A. (2022). *Data in Brief*, 41, 107922.

<https://doi.org/10.1016/j.dib.2022.107922>

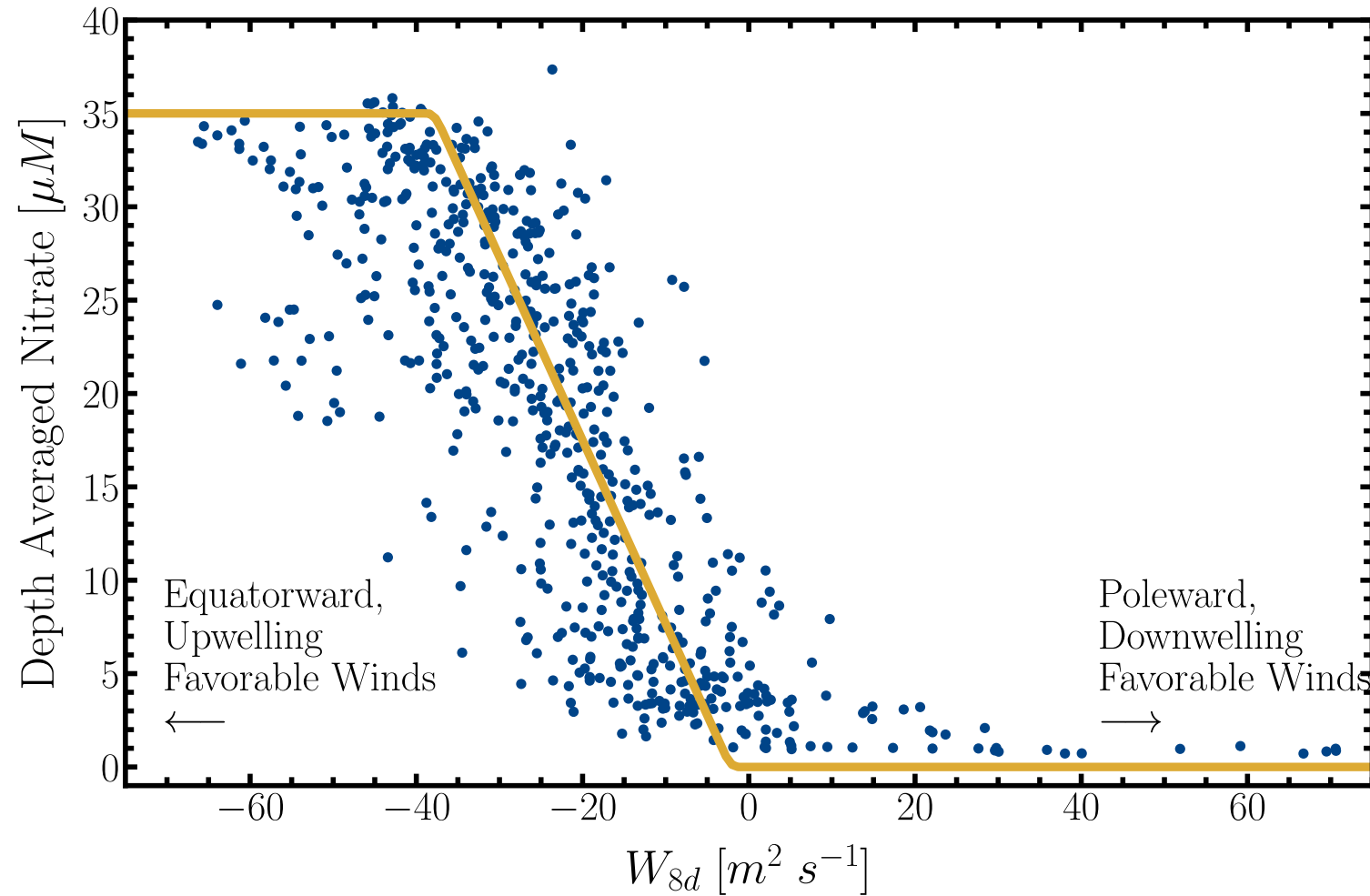
Wind Forcing of Inner Shelf Nitrate



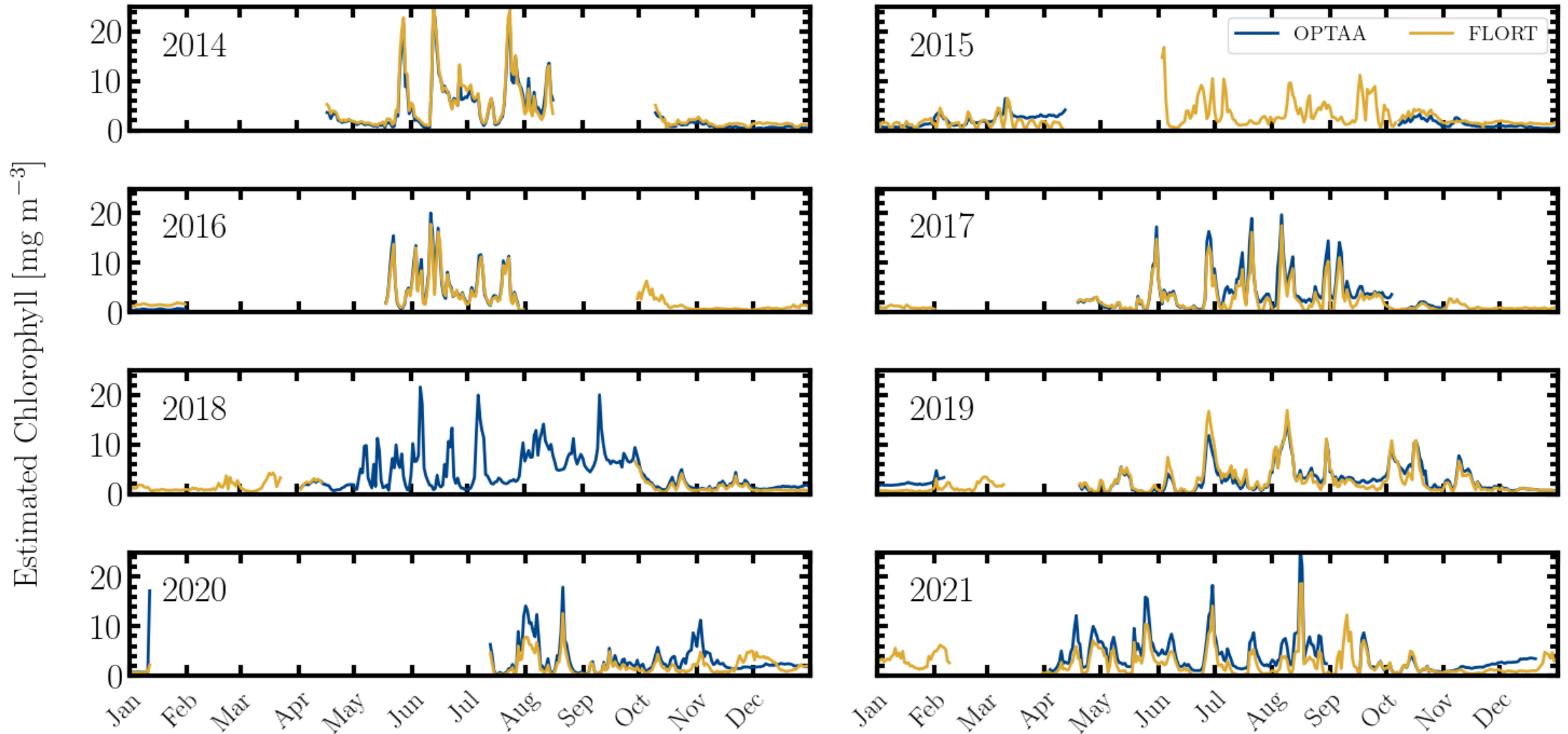
$$W_k(t) = \int_0^t \frac{\tau^s}{\rho_0} e^{\frac{t'-t}{k}} dt'$$



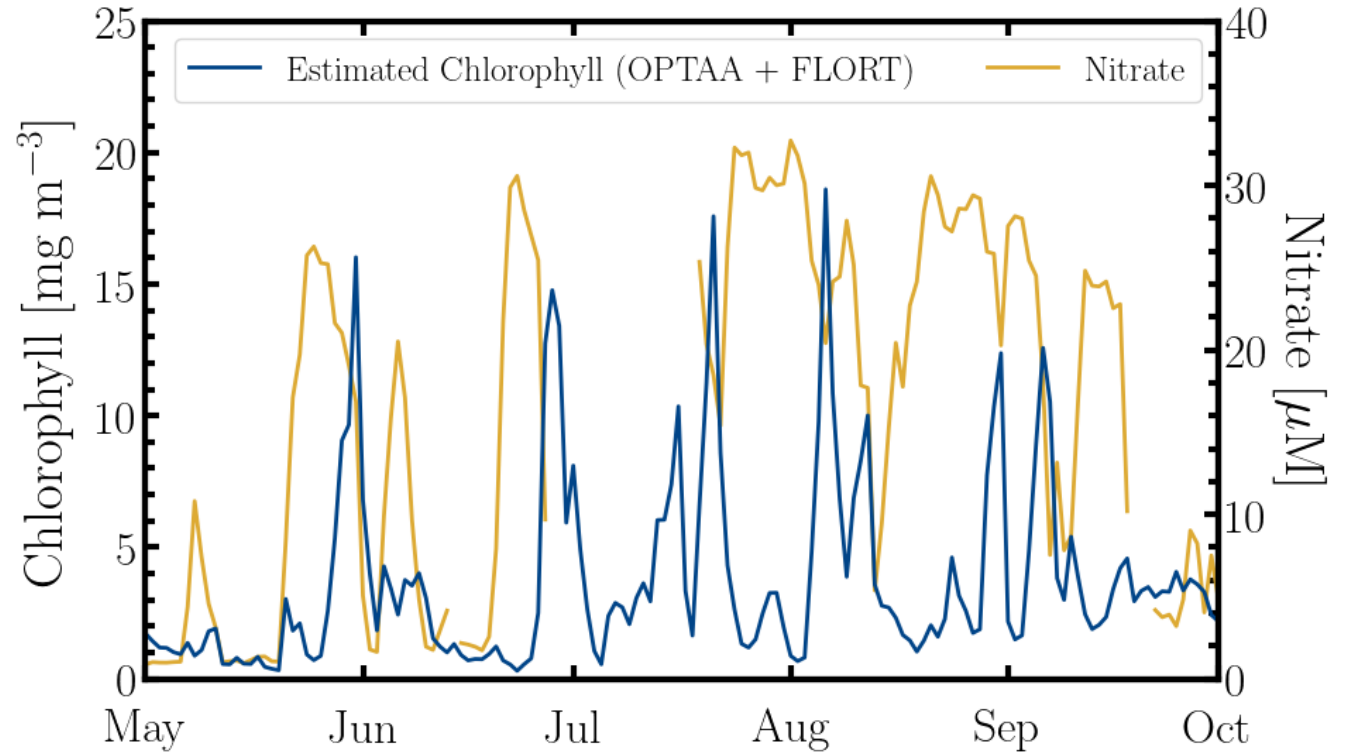
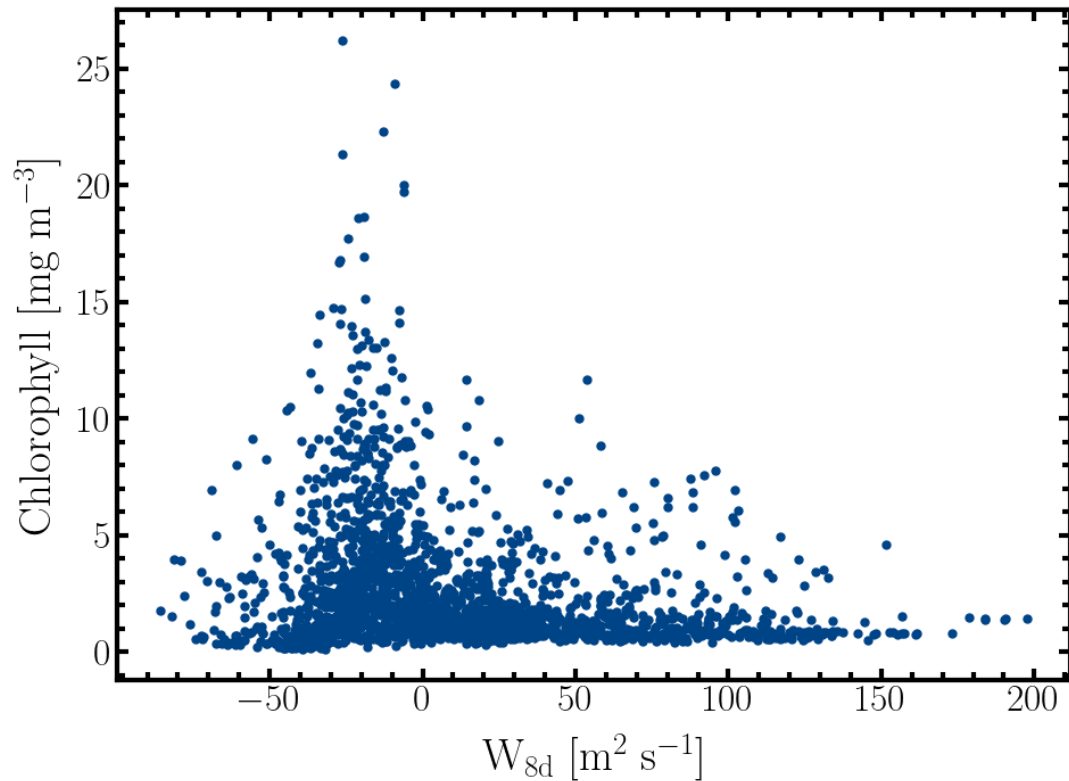
Physical Controls on Inner Shelf Nitrate



ACS Chlorophyll Dataset



Inner Shelf Chlorophyll Response to Upwelling



$$W_k(t) = \int_0^t \frac{\tau^s}{\rho_0} e^{\frac{t'-t}{k}} dt'$$

What did I learn?

Most important takeaways for me:

- OOI Data Explorations repository – thanks all who contributed!
- Understanding how others are using optical data and the types of problems they are interested in solving with it, which really influences the ecosystem motivations behind the physical questions I investigate

Something I still want to work on:

- Programmatic ways to handle QA/QC on long term optical datasets

Many thanks to organizers and contributors!