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2022 Salish Sea Ecosystem Conference (Online)

Apr 26th, 4:00 PM - 4:30 PM

Coastal Ocean Acidification Along the Washington Coast Adjacent to the Salish Sea

Richard Feely
Pmel/noaa

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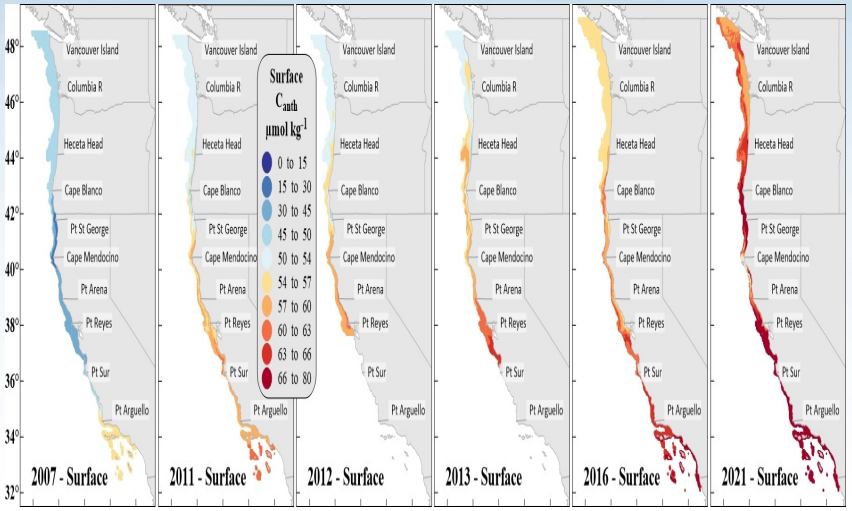
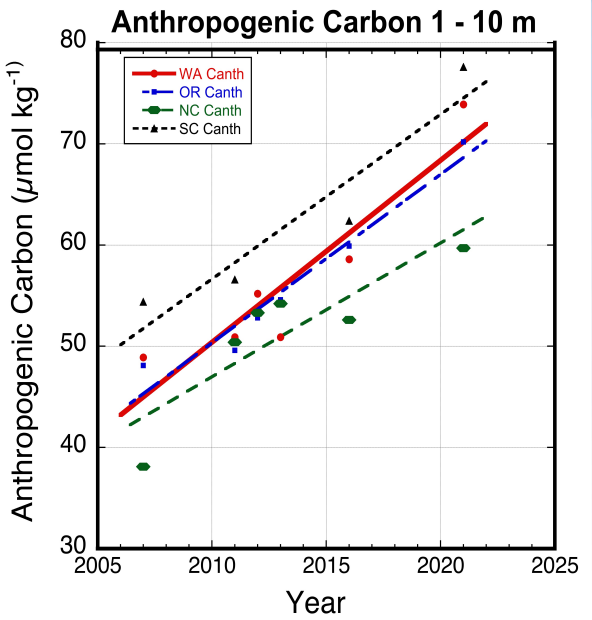
Coastal Ocean Acidification Along the Washington Coast Adjacent to the Salish Sea

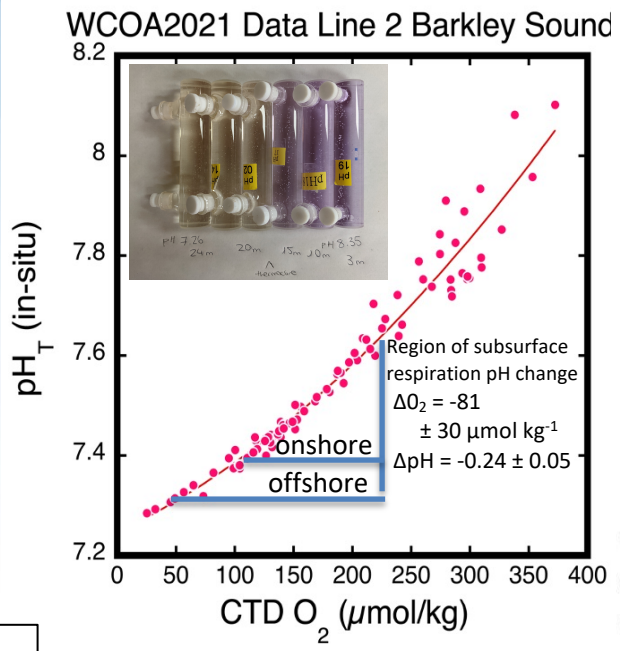
Feely, R. A., B. R. Carter, N., S. Alin, J. Sharp, D. Greeley, J. Herndon, and N. Bednarsek

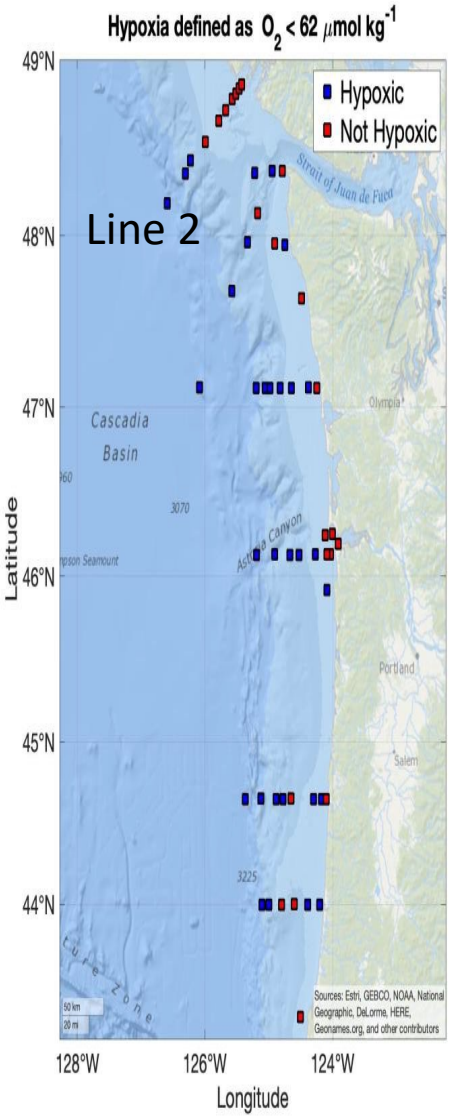
NOAA OCEAN ACIDIFICATION PROGRAM

Surface Anthropogenic Carbon (µmol/kg)









Coastal Acidification refers to a combination of ocean uptake of atmospheric CO_2 and other coastal chemical additions and subtractions that can be driven by natural or anthropogenic processes. -Dwight Gledhill, NOAA Ocean Acidification Program

Anthropogenic carbon dioxide concentrations in surface waters are highest in the Southern California region and lowest in the upwelling region off northern California near Cape Mendocino

Subsurface respiration causes a -81 µmol kg^{-1} decrease in dissolved oxygen and a -0.24 decrease in pH during the spring and summer months.

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Table 1. Average anthroppogenic carbon (Canth) and remineralized carbon (Cbio) in the California Current Ecosystem

0 - 10 m depth		50 - 60 m depth		100 - 110 m depth	
Canth	Cbio	Canth	Cbio	Canth	Cbio
56	17	46	102	41	135