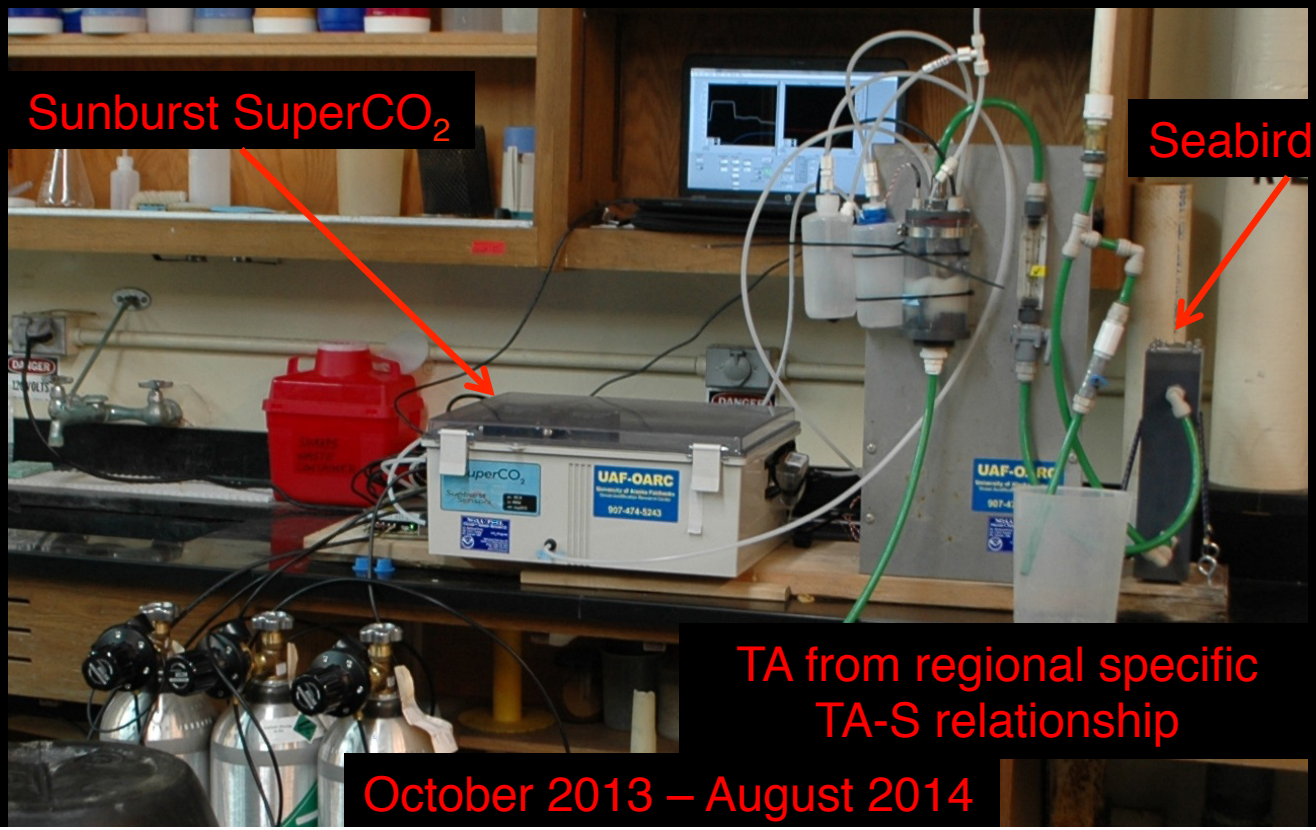
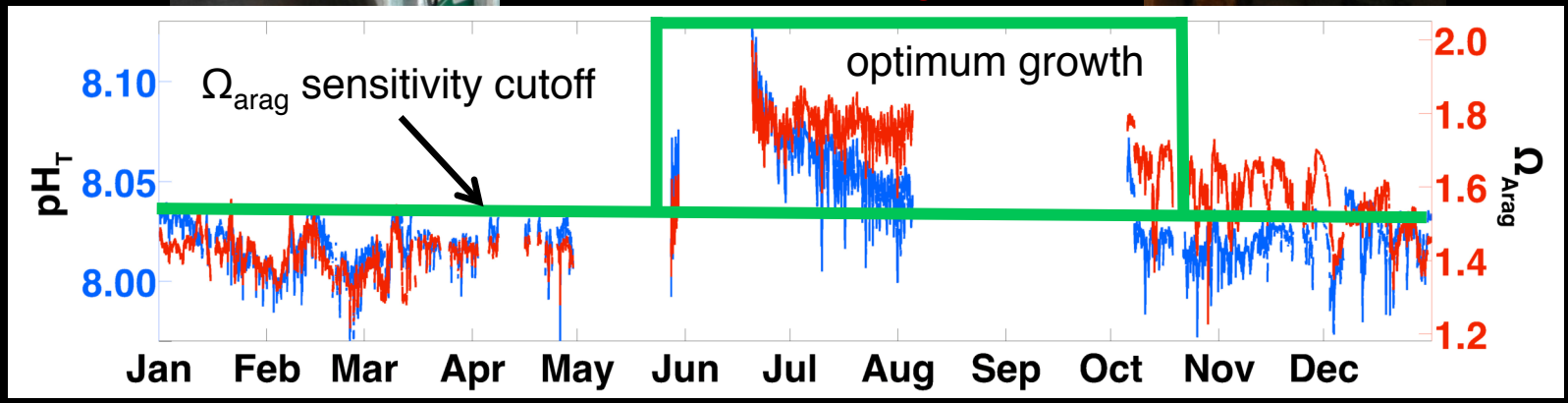
On the Frontline: Tracking $CaCO_3$ Corrosivity in an Alaskan Shellfish Hatchery

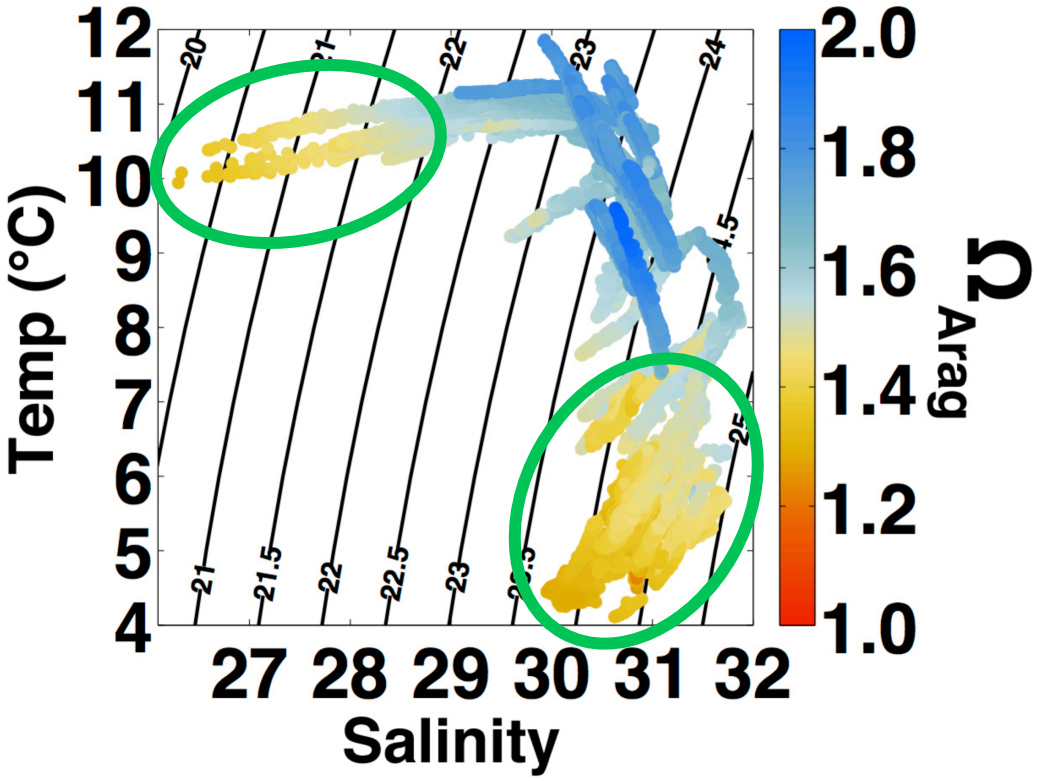
Evans, Mathis, Ramsay and Hetrick, 2015; *PLOS ONE*, submitted

Alutiiq Pride Shellfish Hatchery (APSH), Seward, Alaska





Tracking Corrosive Ω_{Arag} at APSH



2 temporally distinct water masses with *stressful levels* of $CaCO_3$ corrosivity; *autumn freshets* and *cold winter water*

APSH now part of larger effort providing data from Pacific shellfish aquaculture facilities:

http://www.ipacoa.org/Explorer?action=oiw:fixed_platform:APSH_Seward1:observations:H1_OmegaAragSat:60d

Approach of Harris et al (2013) remove anthropogenic CO_2

Average Ω_{arag} = 1.55 ± 0.15; 43% < Ω_{arag} 1.5

Optimum growth window wrt Ω_{arag} closes @ Atm. pCO_2 = 500 µatm; Year 2040 w/ IPCC AR5 RCP 8.5