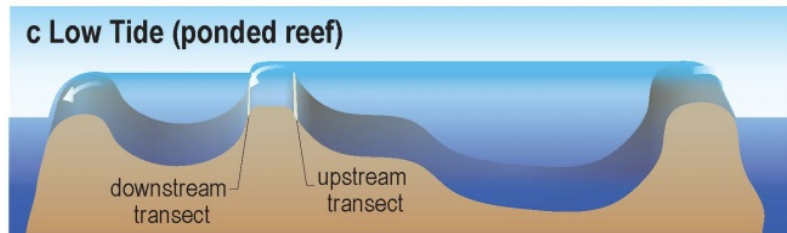
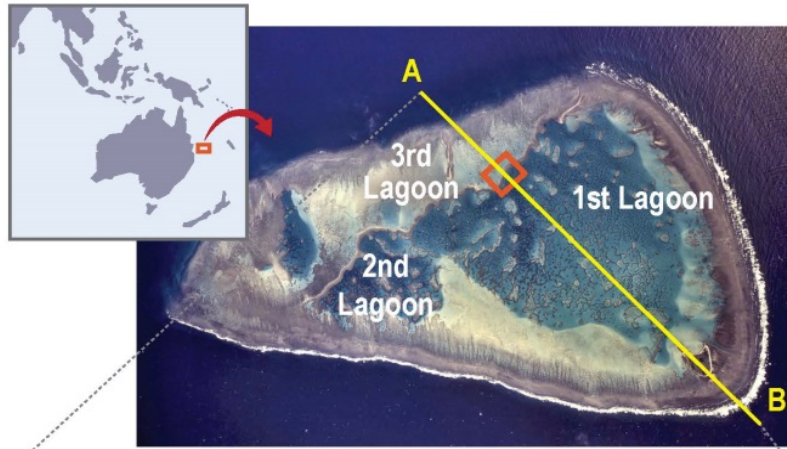


Manipulative Field Studies: Alkalinity Addition

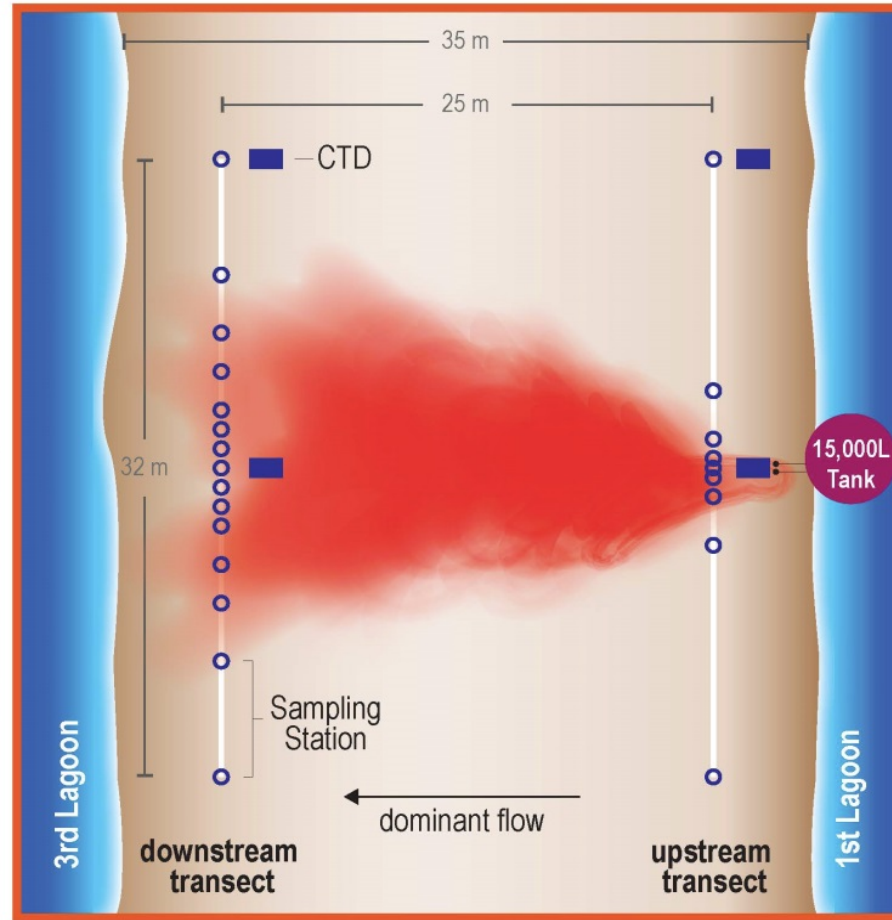
One Tree Reef,
Australia



a One Tree Island



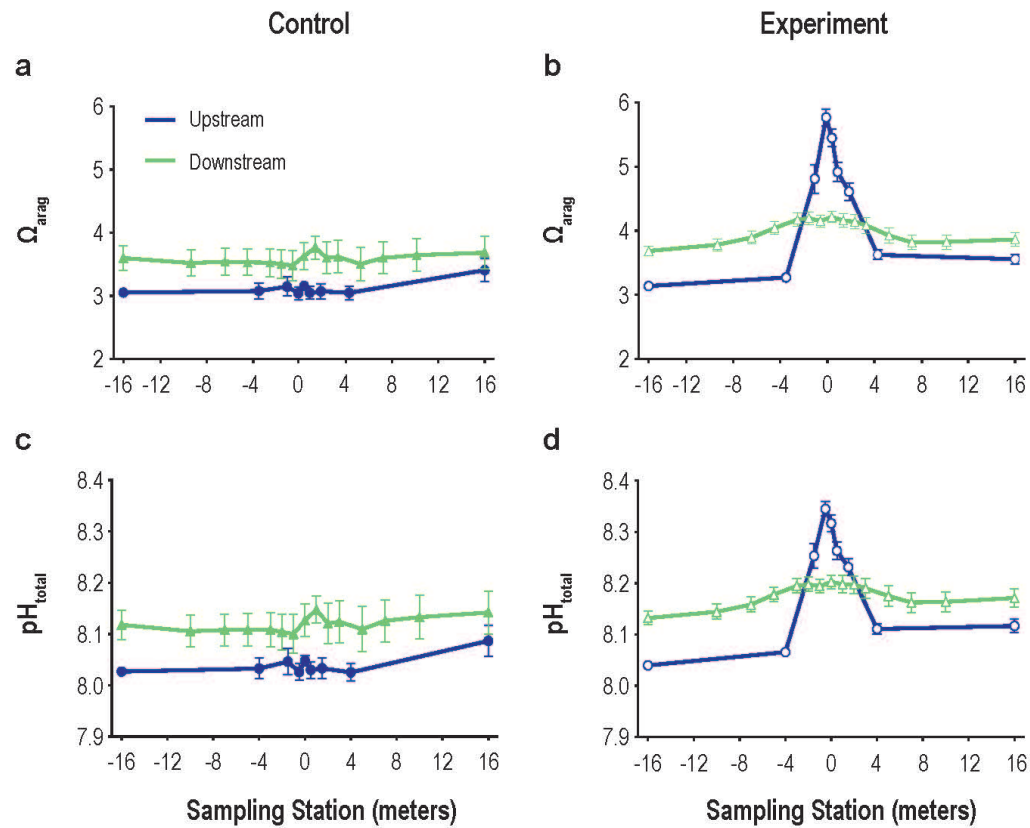
d Study Area



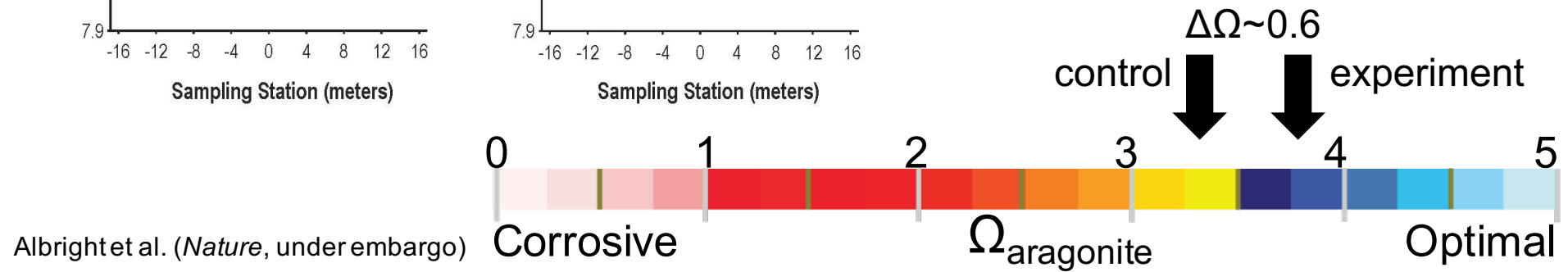
Alkalinity Addition: Dual Tracer Regression Method

- Active Tracer (Alkalinity): mixing, dilution, calcification
- Passive Tracer (Rhodamine WT): mixing, dilution





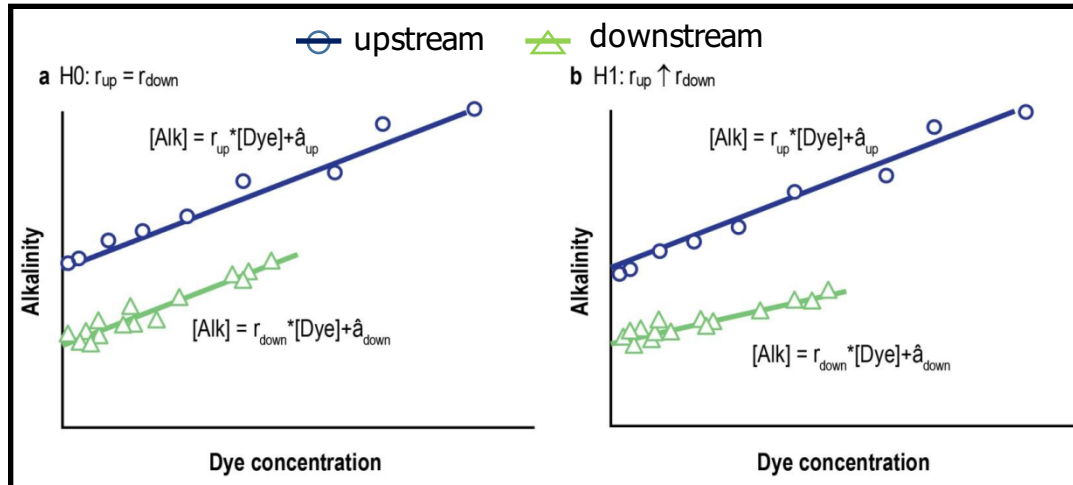
- Average increase in Ω_{arag} of 0.6 units in the central part of the plume, compared to the estimated 0.7 unit decrease from pre-industrial to today.



Albright et al. (*Nature*, under embargo)

Alkalinity Addition: Dual Tracer Regression Method

- Active Tracer (Alkalinity): mixing, dilution, calcification
- Passive Tracer (Rhodamine WT): mixing, dilution



$Calc_{background} \sim y\text{-intercepts}$

$Calc_{increase} \sim \text{slopes}$

H0: ΔA_T is not systematically related to the dye concentration.

H1: ΔA_T is systematically related to the dye concentration; areas with more A_T (and more dye) change at a different rate than areas with less A_T (and less dye).

Albright et al. (*Nature*, under embargo)



























