

Bigelow

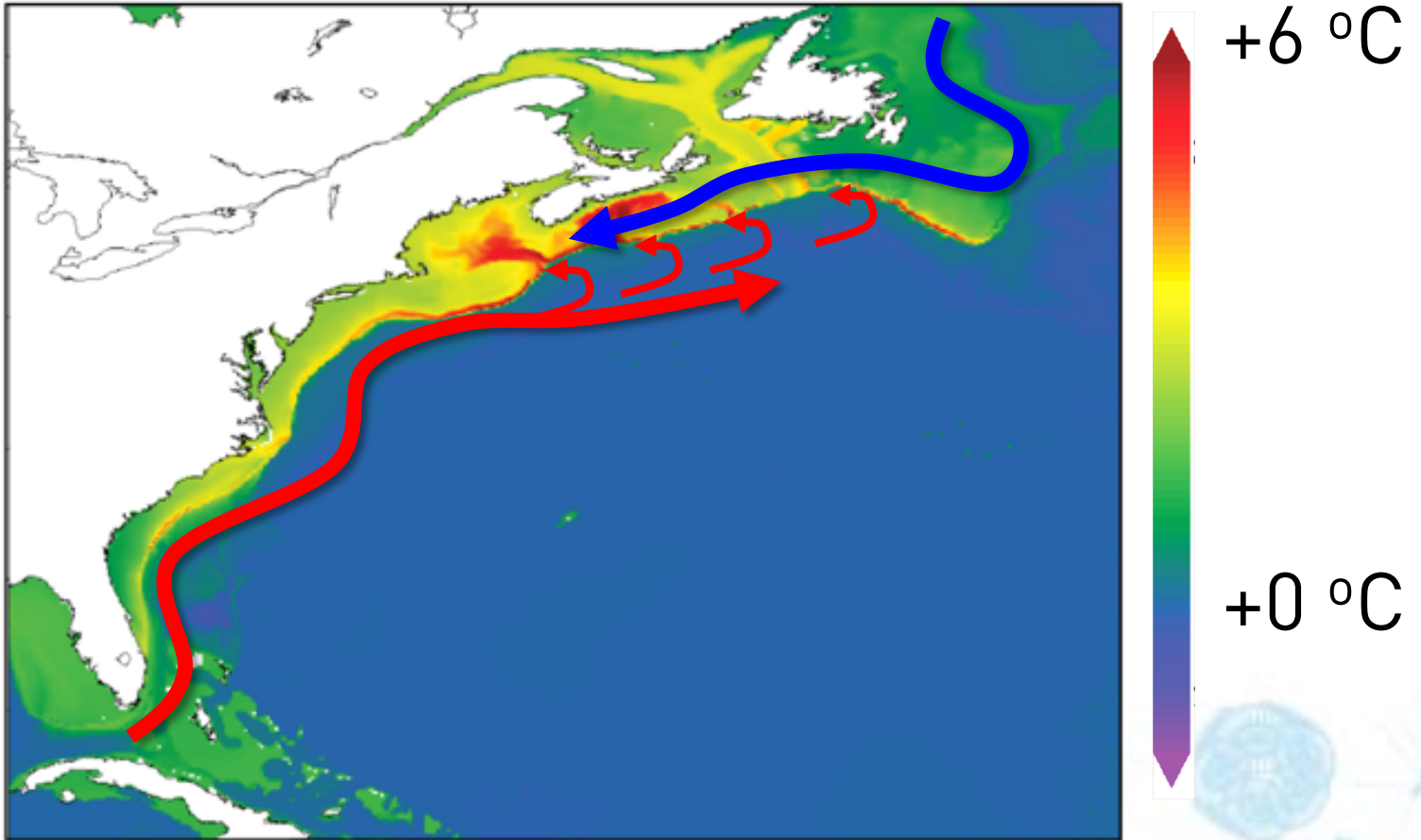
Laboratory for
Ocean Sciences

Shifting Distributions in a Changing Climate

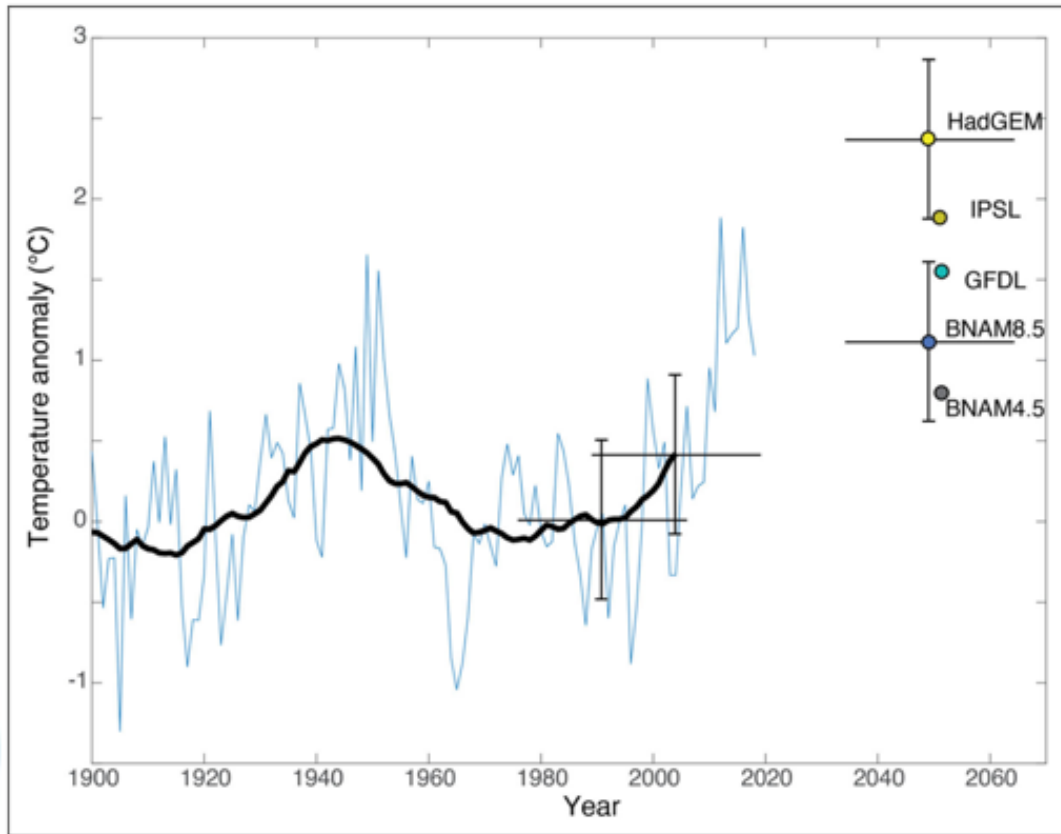
US-Canada Lobster Meeting 2023

Nick Record



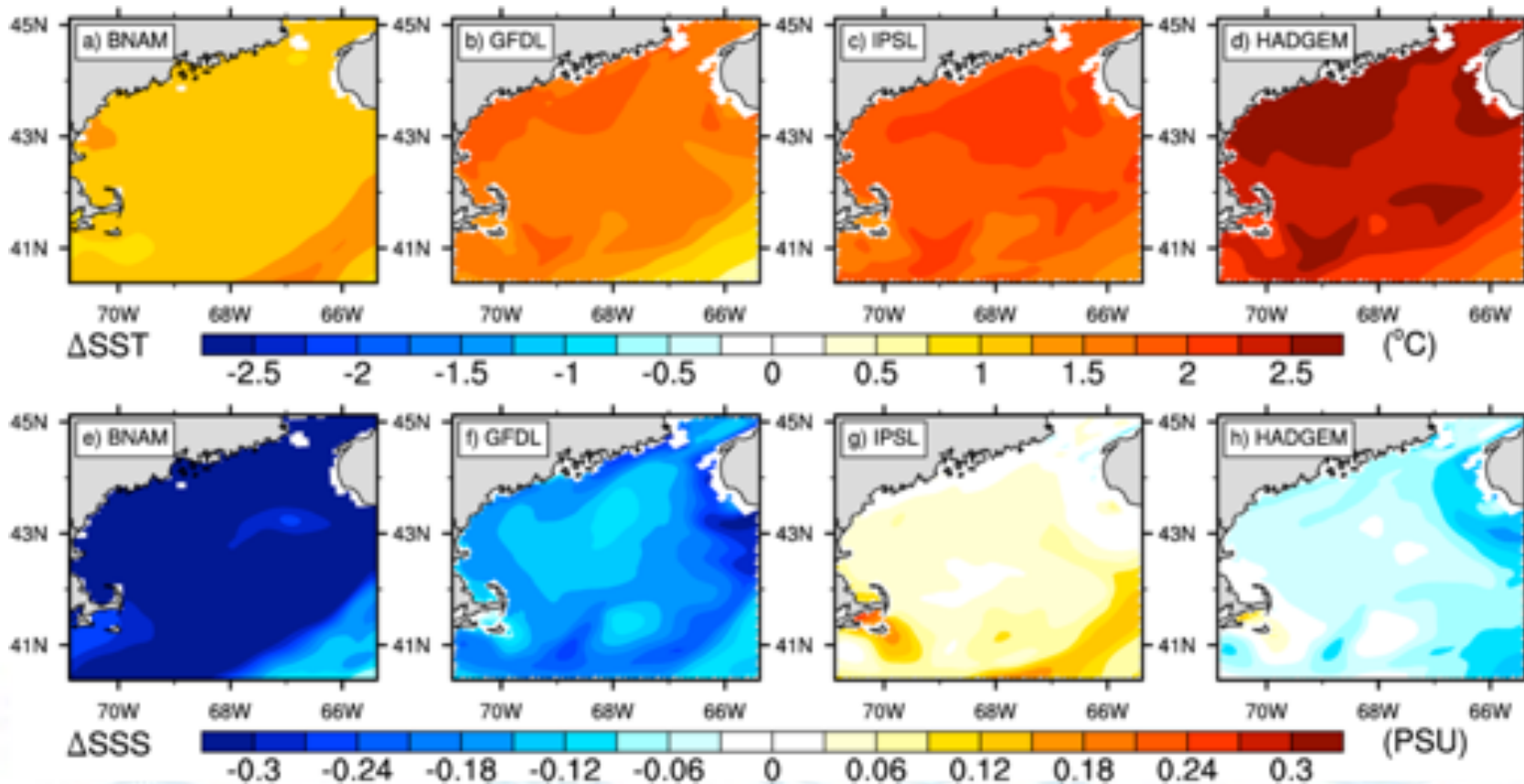


Saba et al. 2015. Enhanced warming of the North West Atlantic Ocean under climate change. *Journal of Geophysical Research: Oceans*. 121(1):118-32.

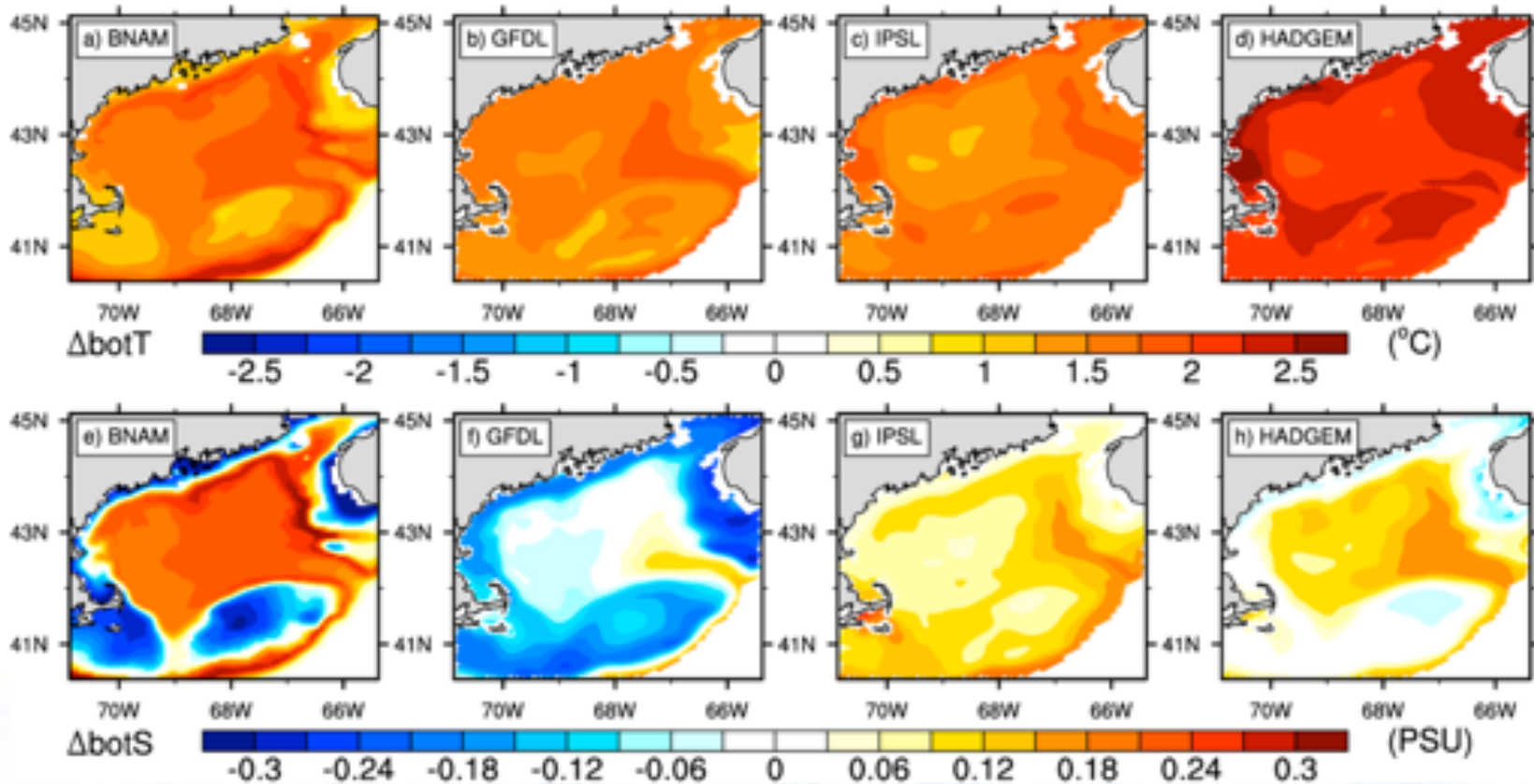


Pershing et al 2021. Climate impacts on the Gulf of Maine ecosystem: A review of observed and expected changes in 2050 from rising temperatures. *Elem Sci Anth.* 4;9(1):00076.

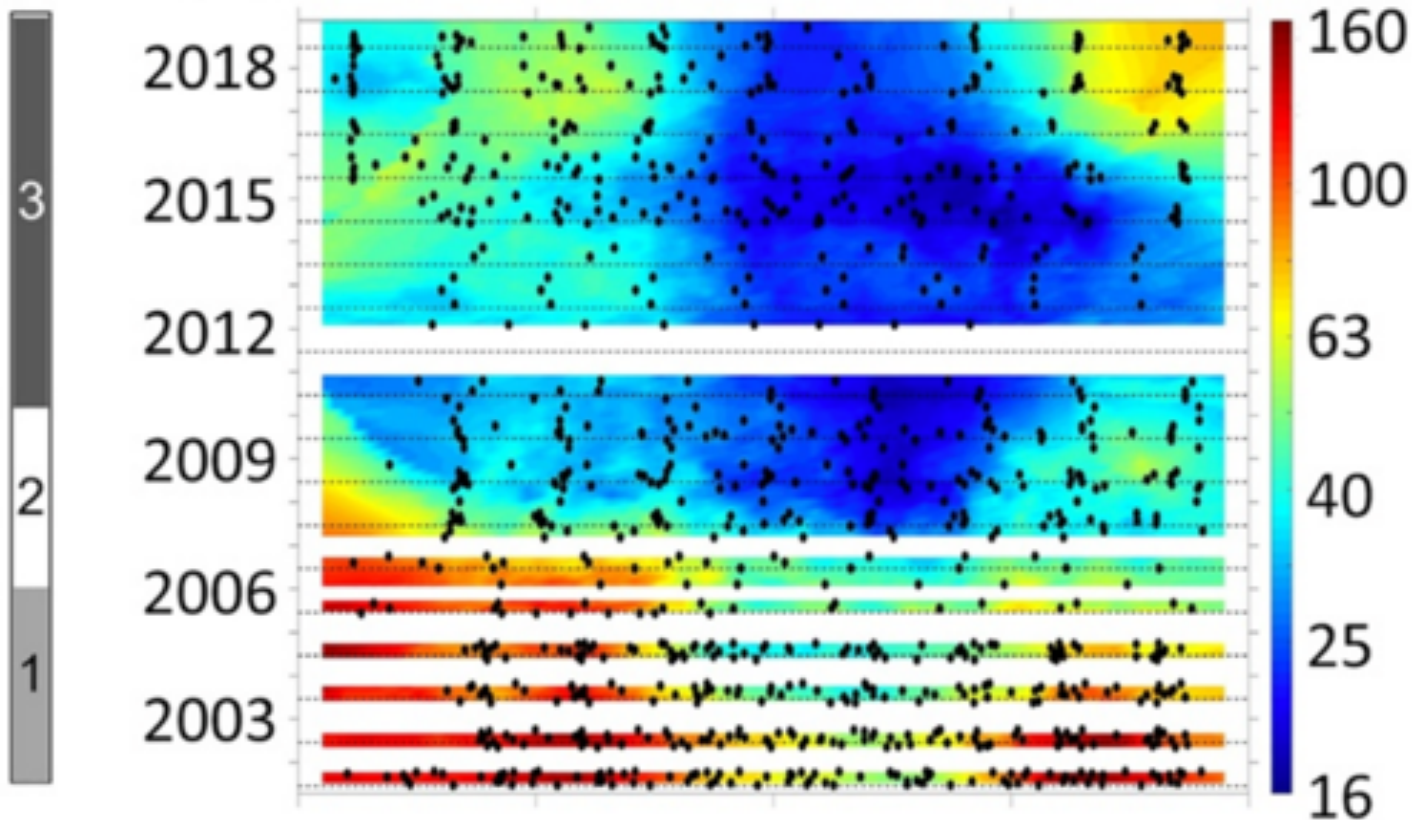
Surface projections

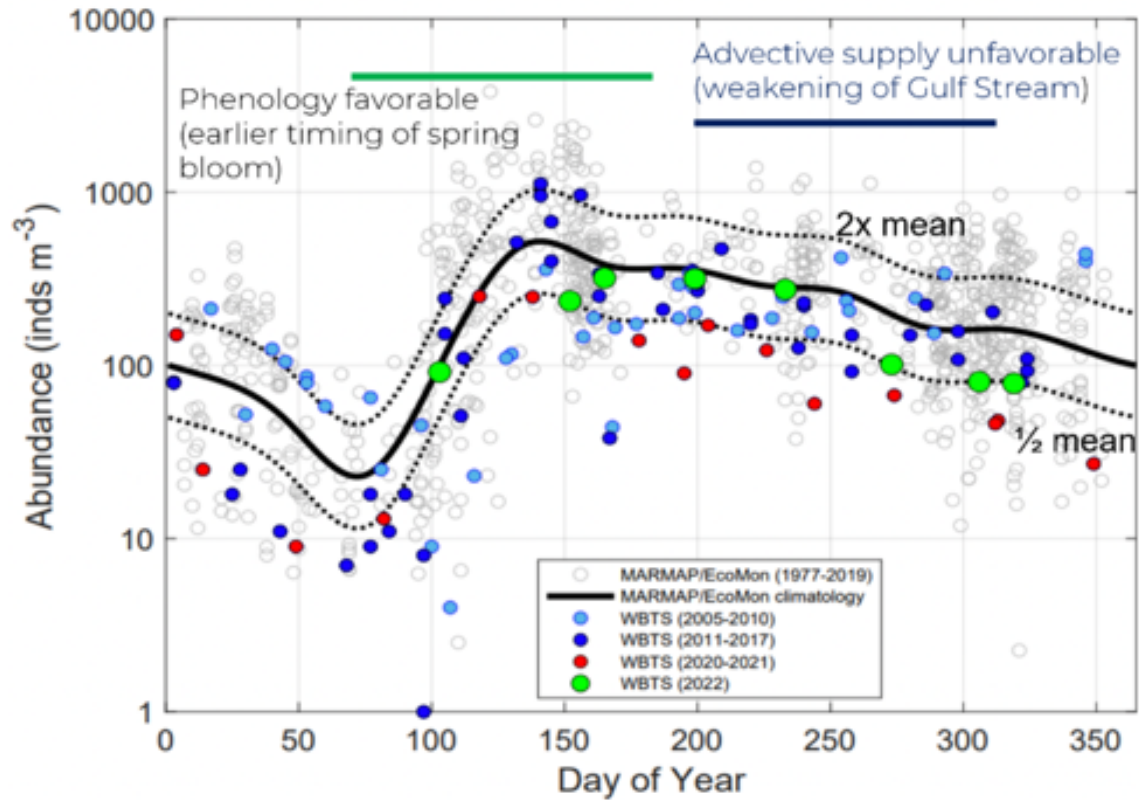


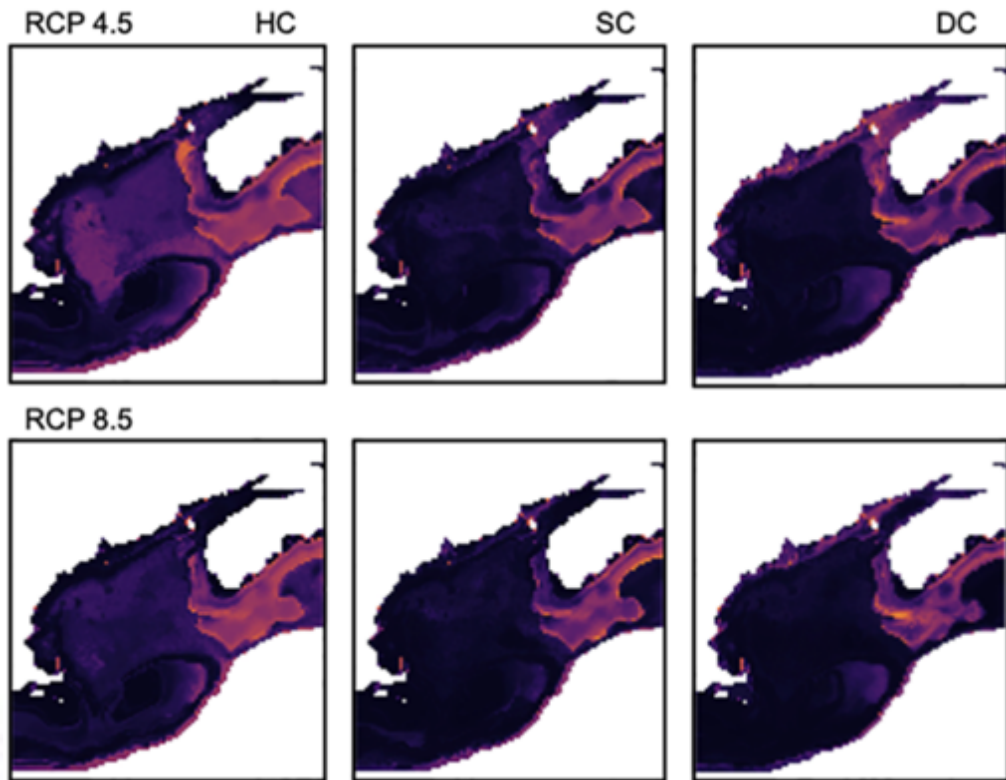
Bottom projections



A Primary Production($\text{mgC m}^{-3} \text{d}^{-1}$)

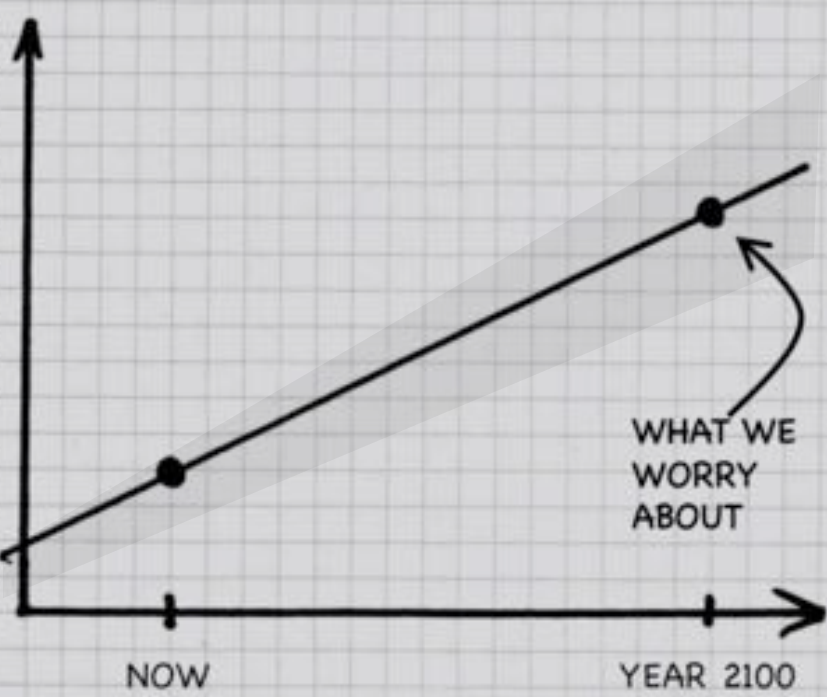






Ross et al. 2021. Projecting regions of North Atlantic right whale, *Eubalaena glacialis*, habitat suitability in the Gulf of Maine for the year 2050. *Elem Sci Anth.* 28;9(1):00058.

SOME CLIMATE VARIABLE
(E.G. TEMPERATURE, SEA LEVEL, ETC)



WHAT WE
WORRY
ABOUT

NOW

YEAR 2100



Thank you!

