

The Ocean around Iceland, Biodiversity & Humans

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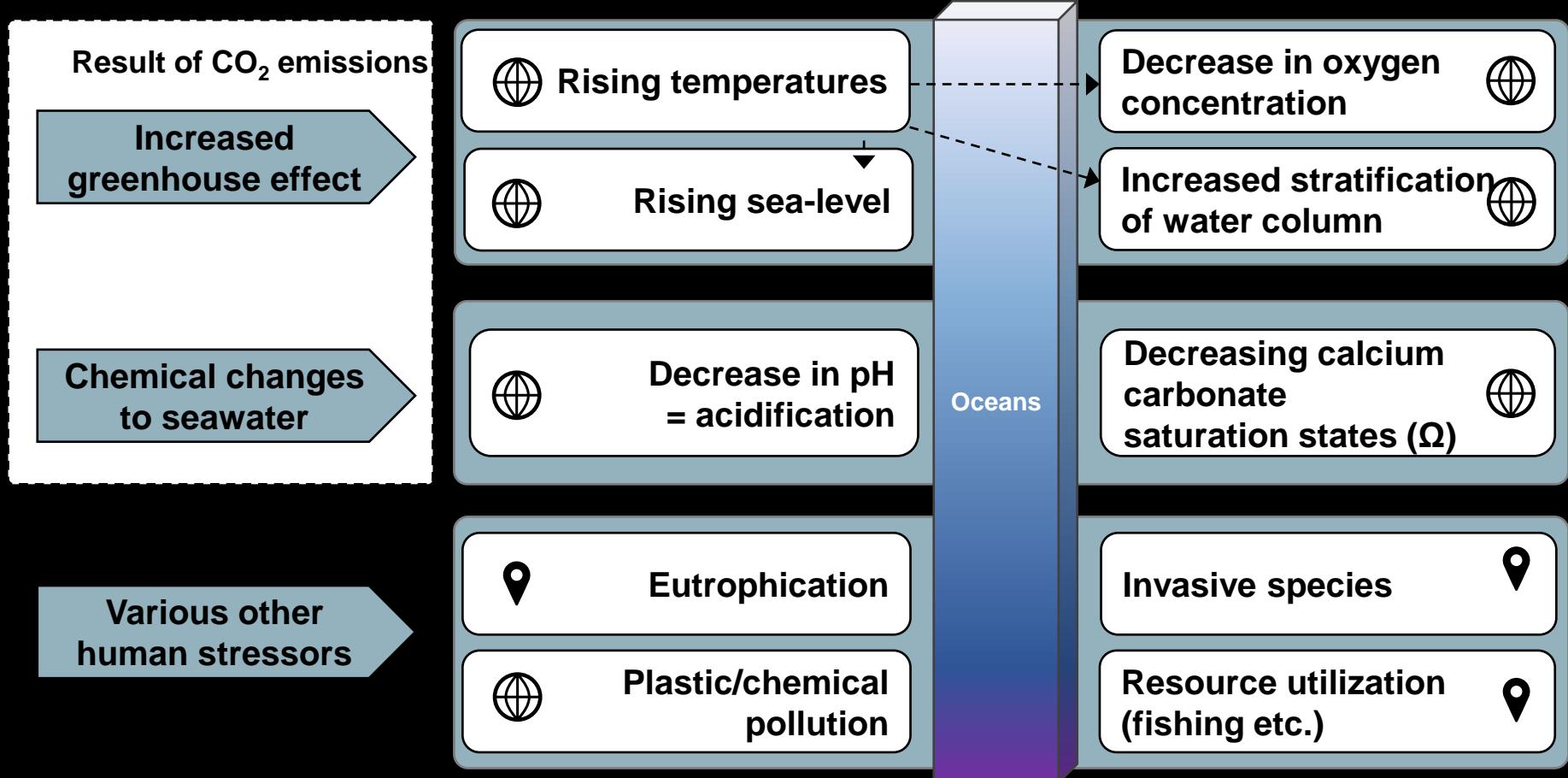


The importance of the ocean ecosystem



Relative export value by species/type

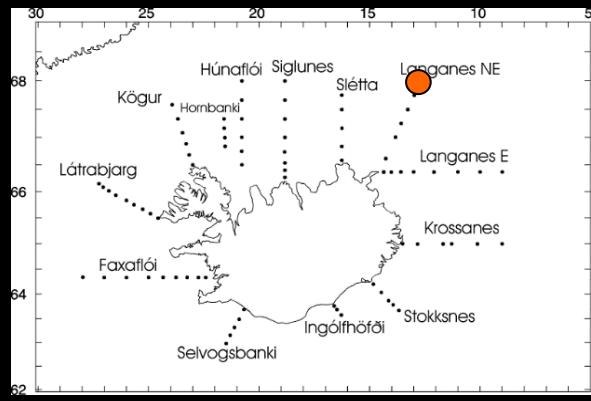
The environmental impact – not a simple story



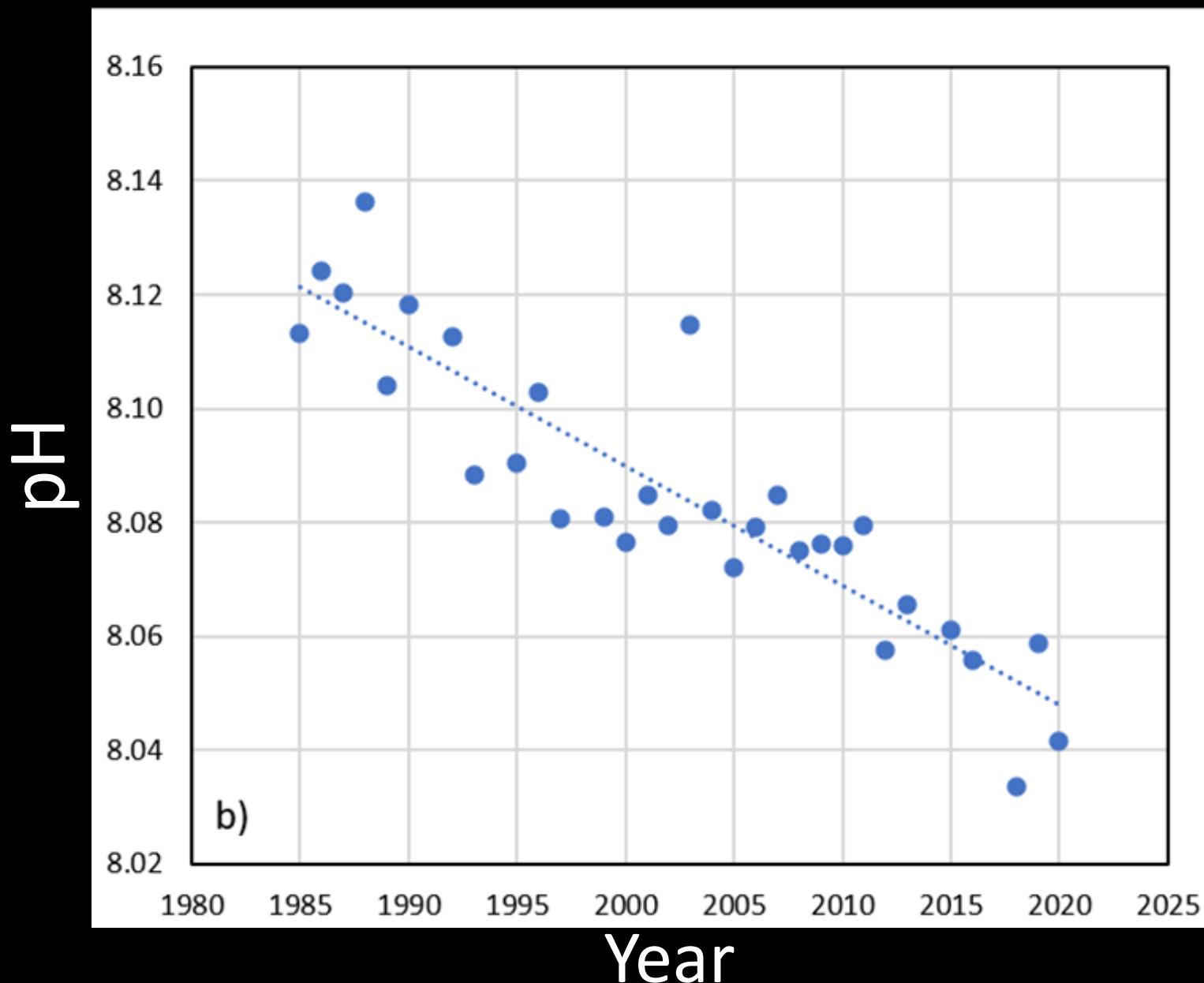
Large-scale changes

Local stressors

Ocean acidification



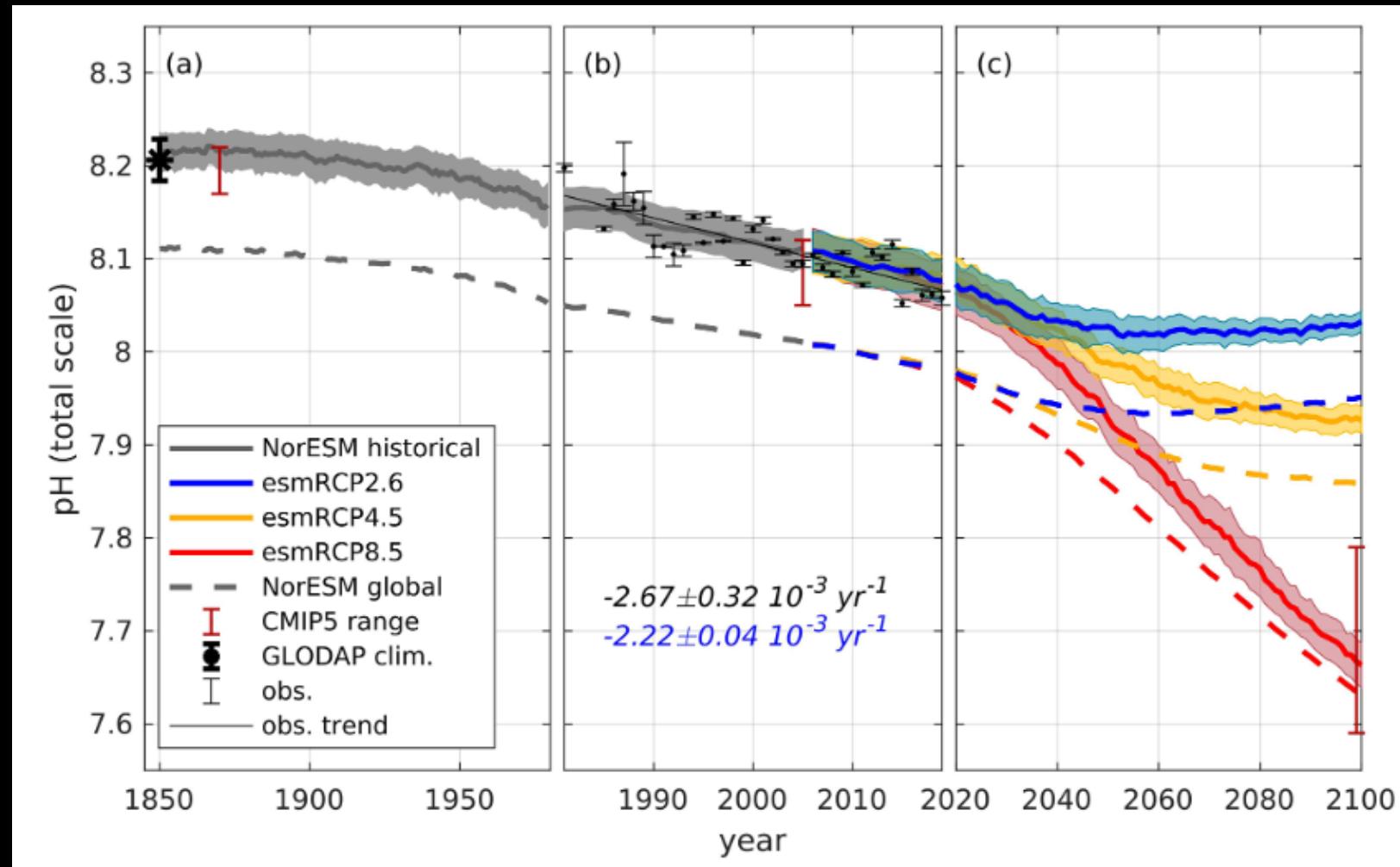
The Cause:
Sea surface uptake
of CO₂



Ocean acidification is a major threat to marine life in the Nordic Seas/in high latitude regions.

Because:

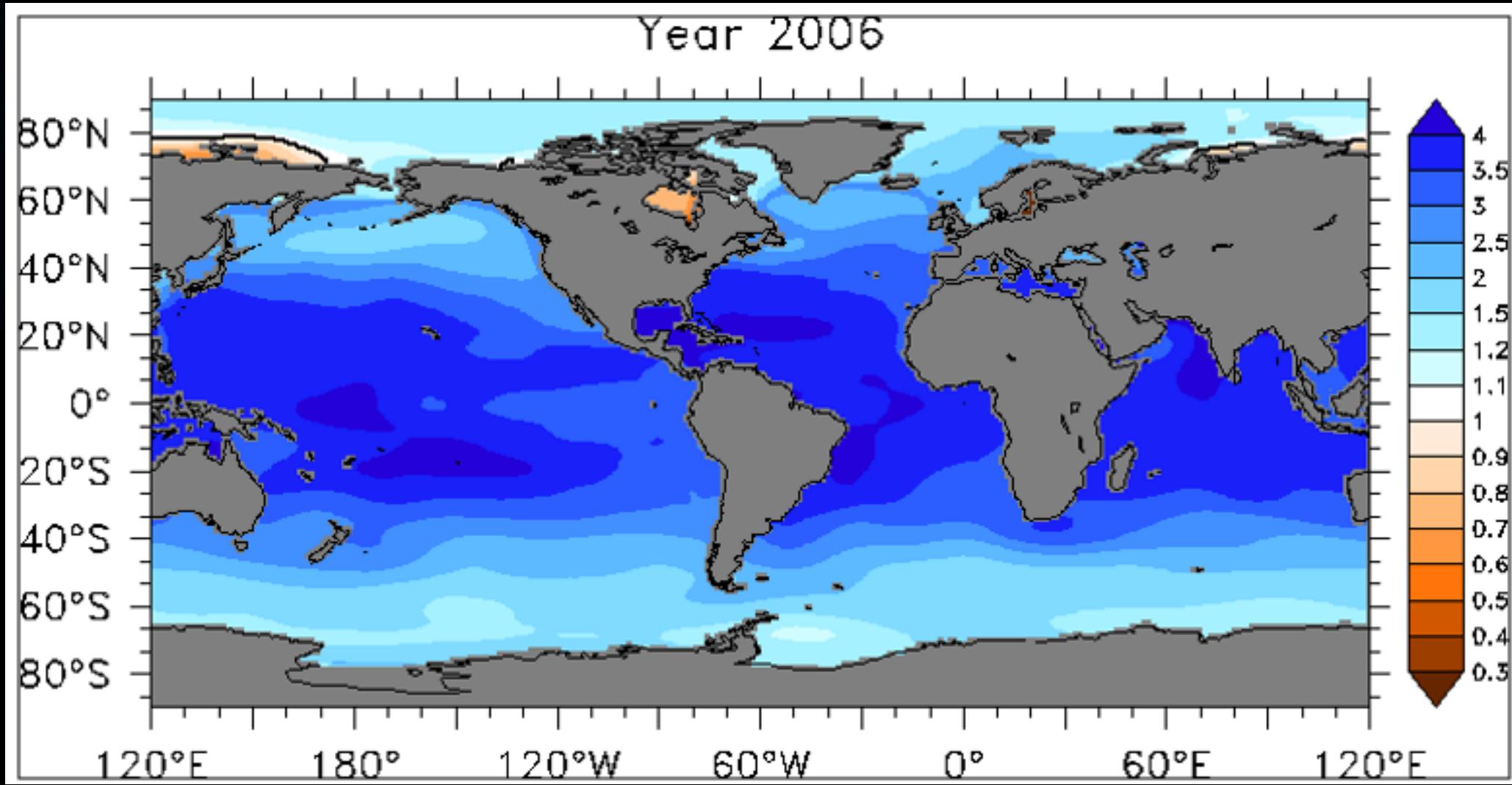
- Low temperatures
- High wind speeds
- Naturally low CaCO₃ states



Surface aragonite saturation ($\Omega_{\text{aragonite}}$) (IPCC AR5 WG1, 2013)

Supersaturated ($\Omega > 1$)

Undersaturated ($\Omega < 1$)

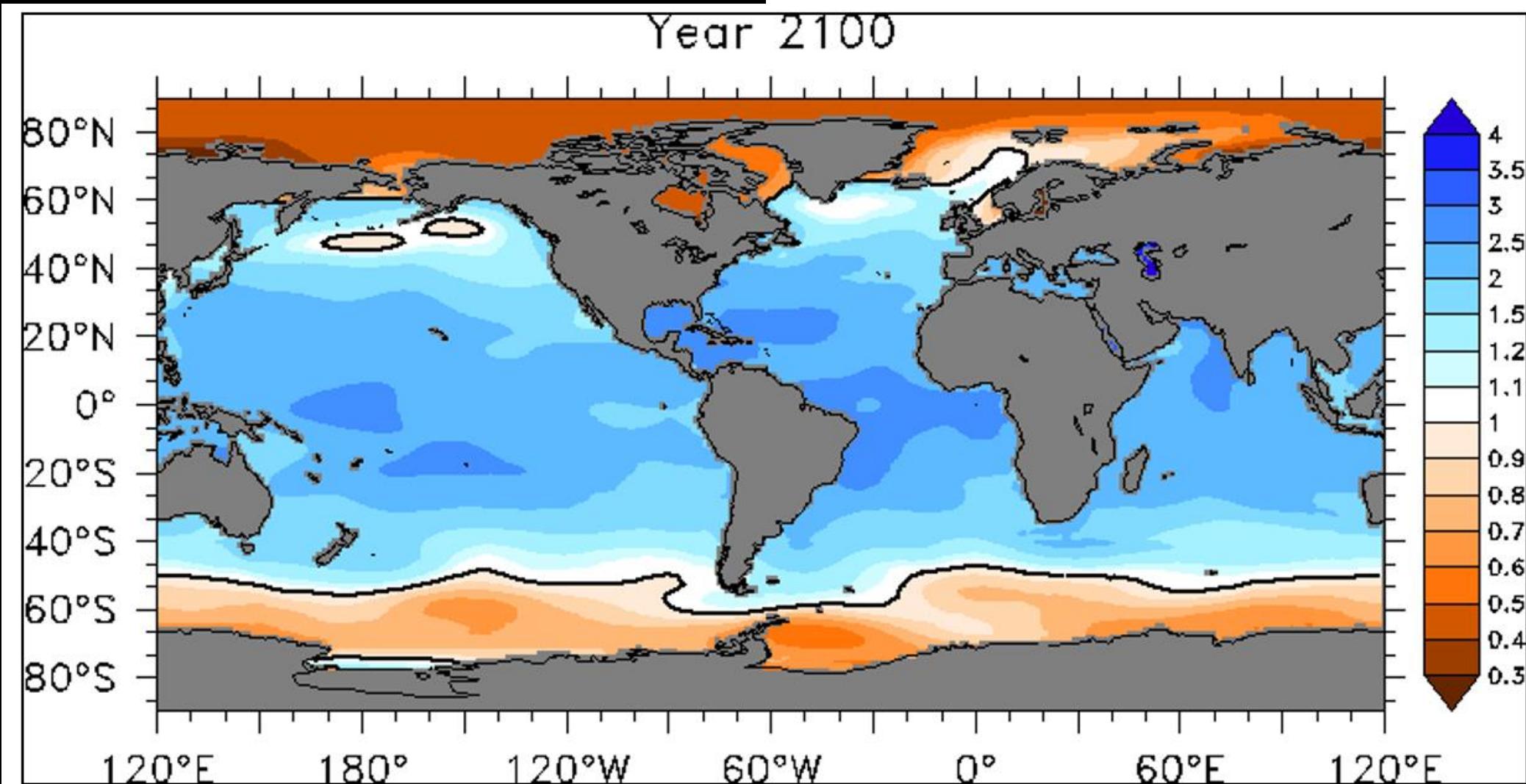


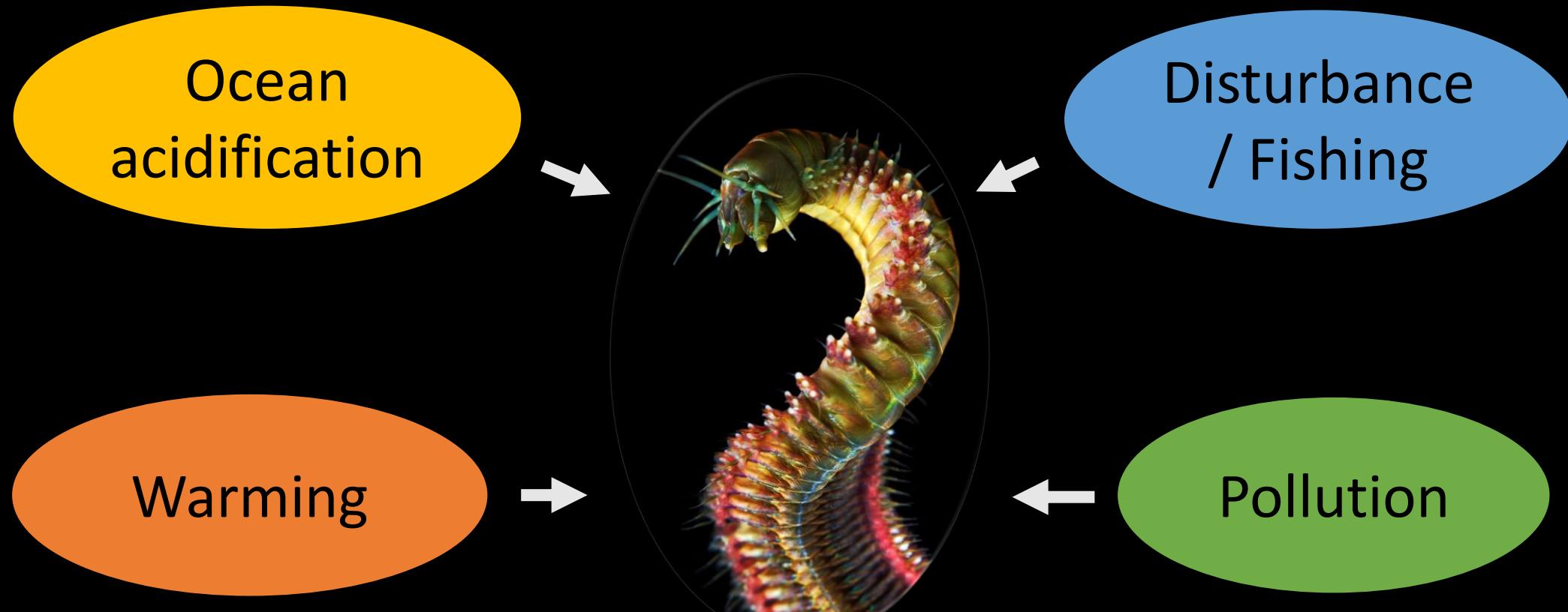
Orr et al. (2005), Caldeira & Wickett (2005), Steinacher et al. (2009), Bopp et al. (2013)

Surface aragonite saturation ($\Omega_{\text{aragonite}}$) (IPCC AR5 WG1, 2013)

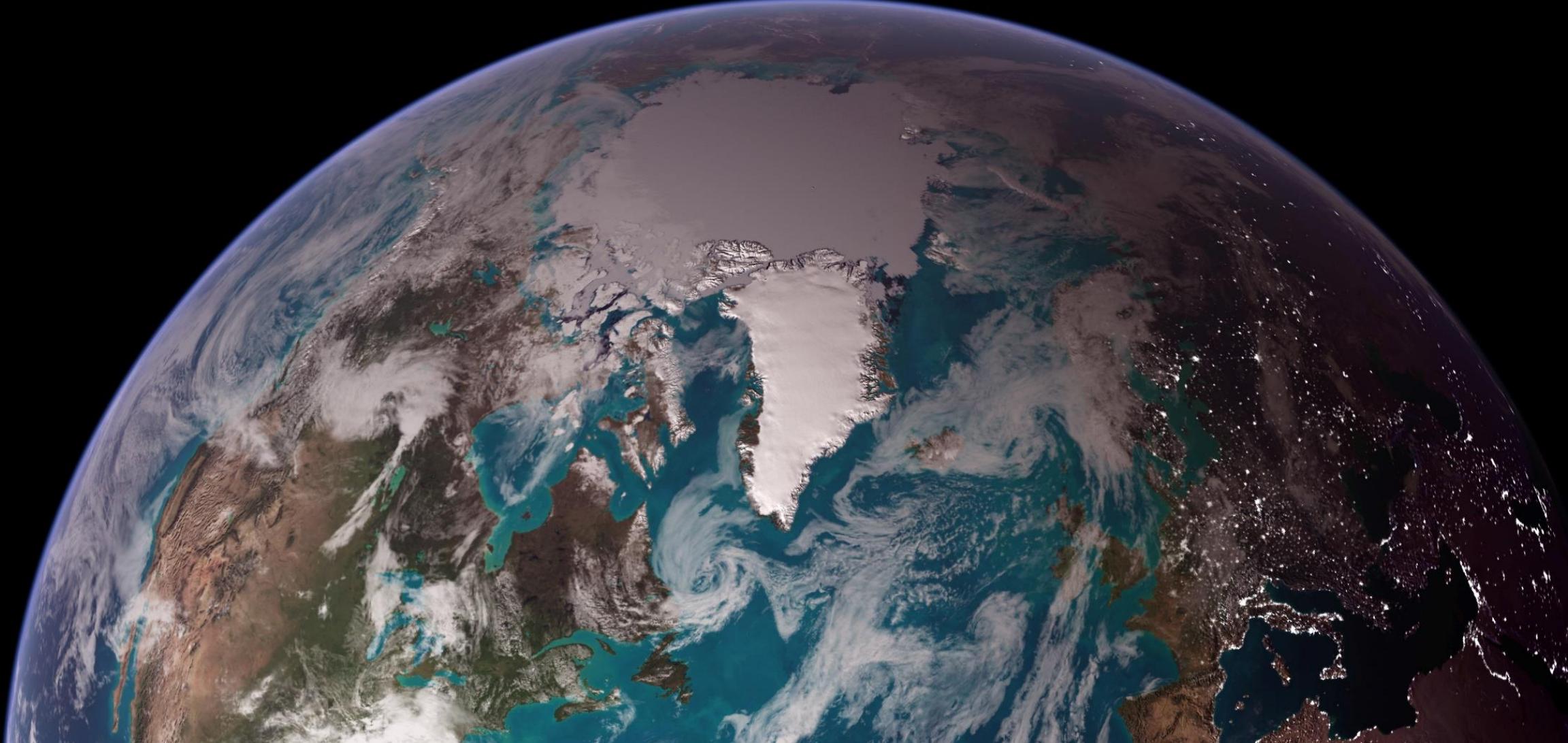
Supersaturated ($\Omega > 1$)

Undersaturated ($\Omega < 1$)





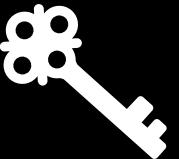
The reason we should care, act and strive towards a sustainable existence



Biodiversity



The take-home message



- The fewer stressors the better.
- We need to develop our understanding of the natural systems, biodiversity, impacts etc. In knowledge lies the key for future solutions
- Think globally – but also, think and act locally.