



UK Ocean Acidification
Research Programme



NATURAL
ENVIRONMENT
RESEARCH COUNCIL



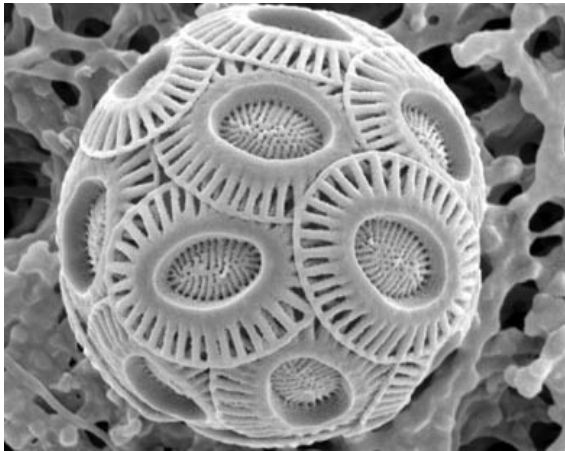
University of
BRISTOL

Environmental Forcing on Pelagic Carbonate Production

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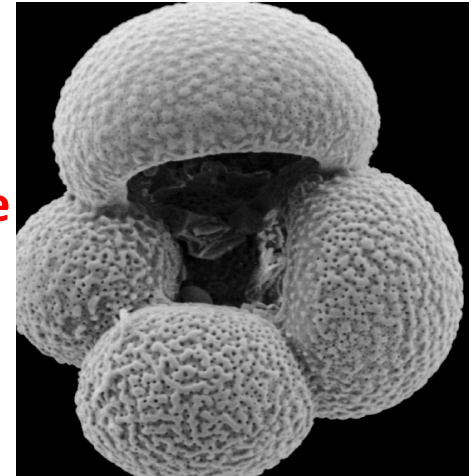
Pelagic Carbonate Production

Coccolithophores



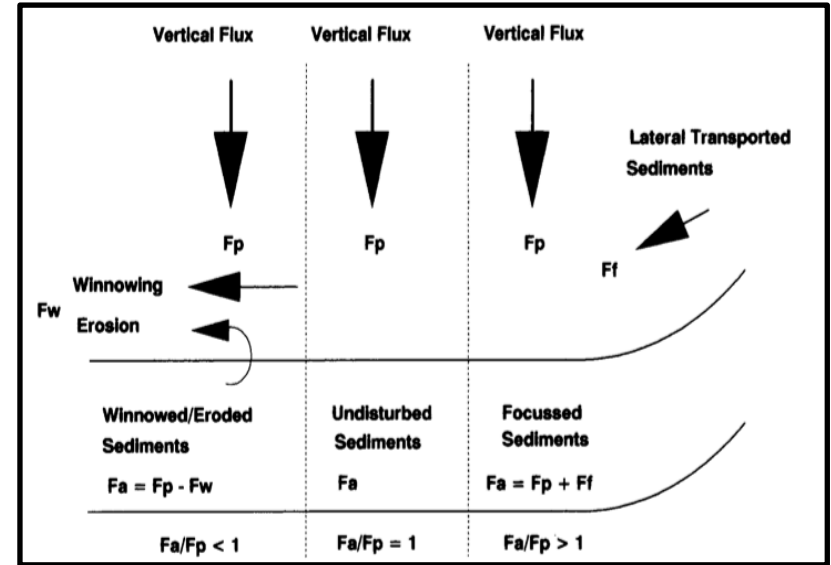
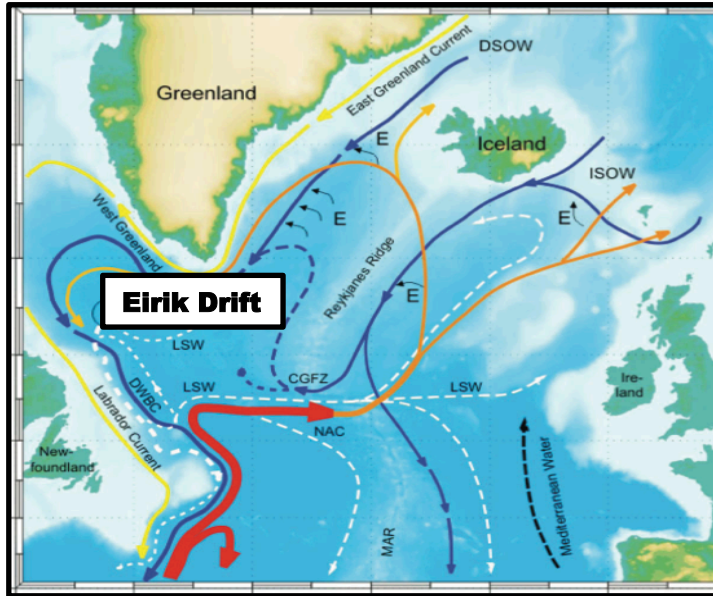
Calcifying plankton
contribute > 90% of marine
pelagic carbonate
production

Foraminifera

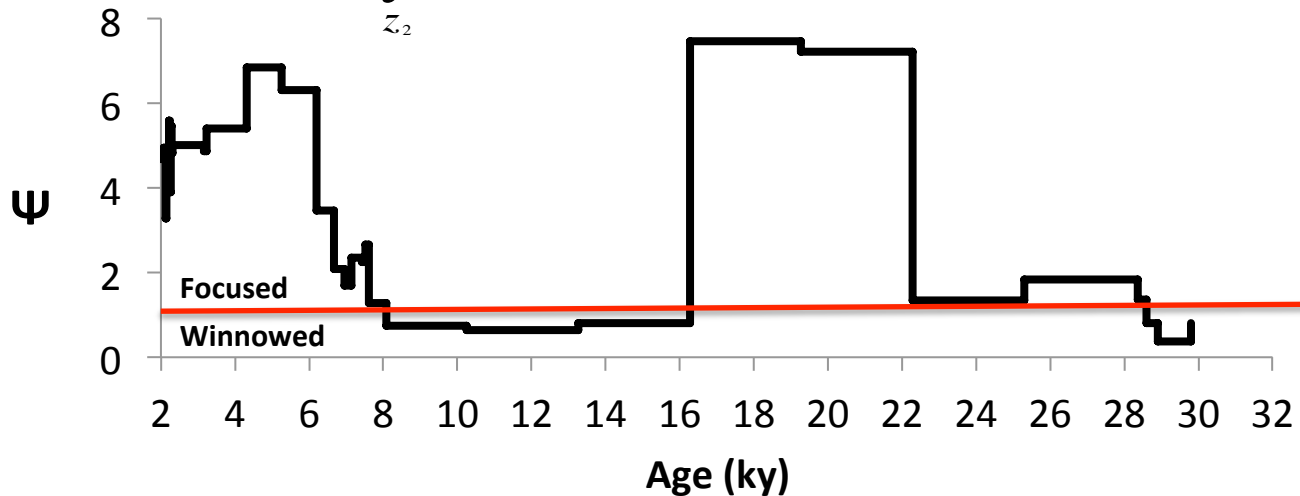


Hypothesis: On-going OA will reduce plankton calcification and decrease the pelagic carbonate production

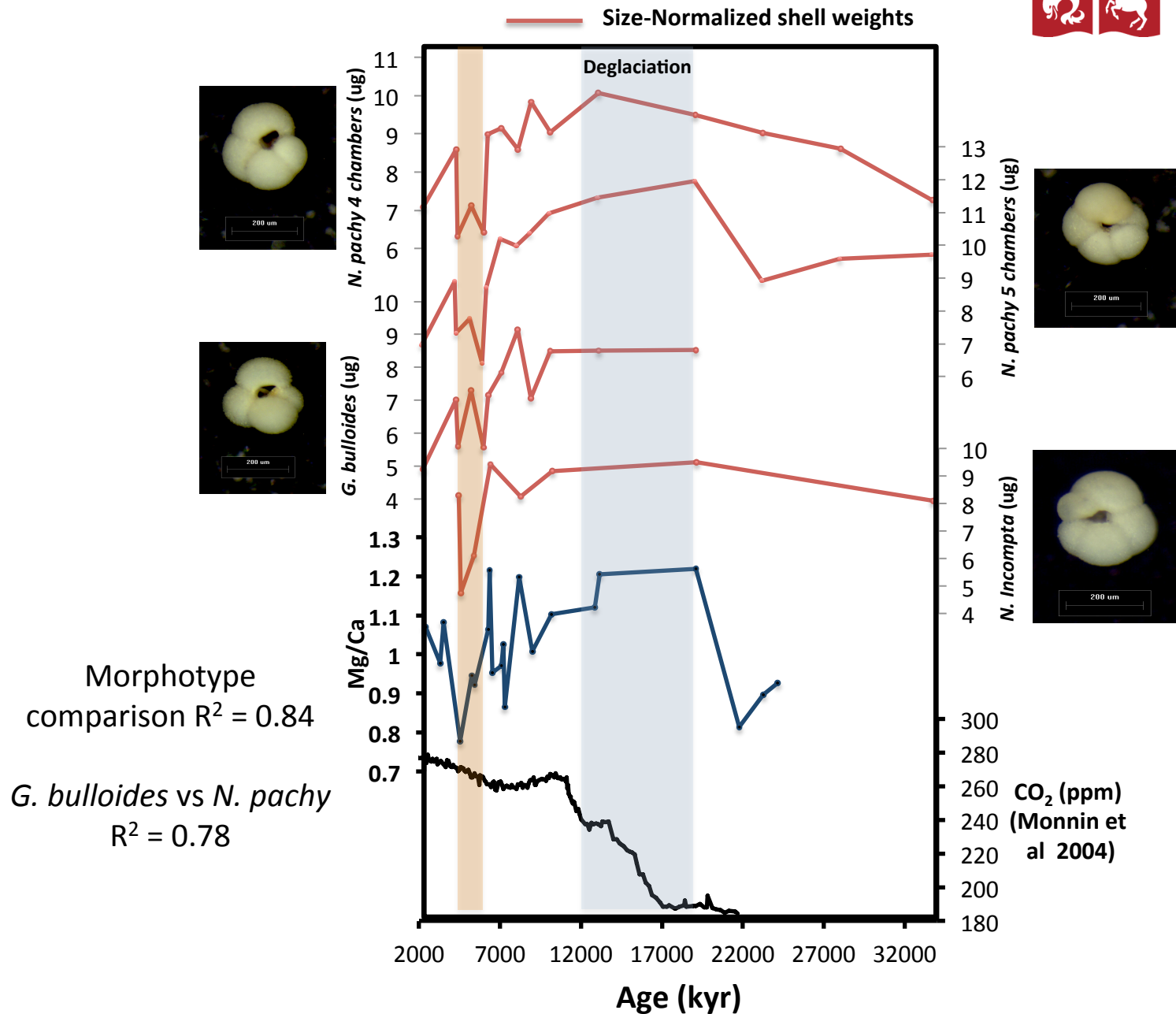
Sediment Drift – ^{230}Th Normalisation



$$\Psi = \int_{z_2}^{z_1} (A_{Th-230}^{scav} \rho dz) / (P_{230}(t_2 - t_1))$$



Holocene foraminiferal calcification



Foraminifera calcification since the beginning of industrialisation

