The Pelagic Record of Ocean Acidification

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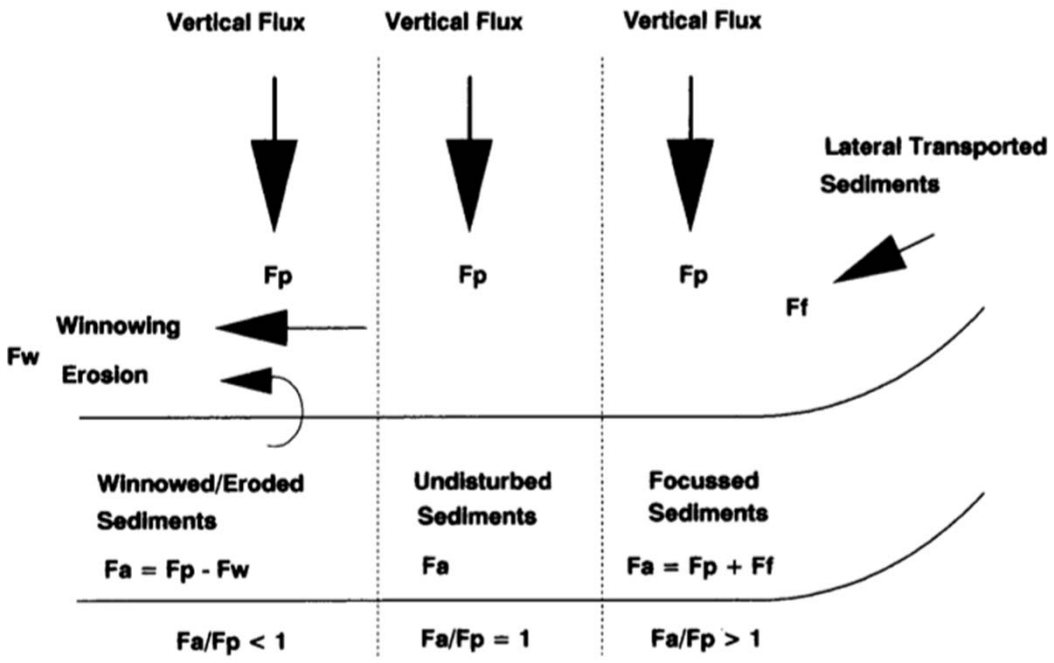
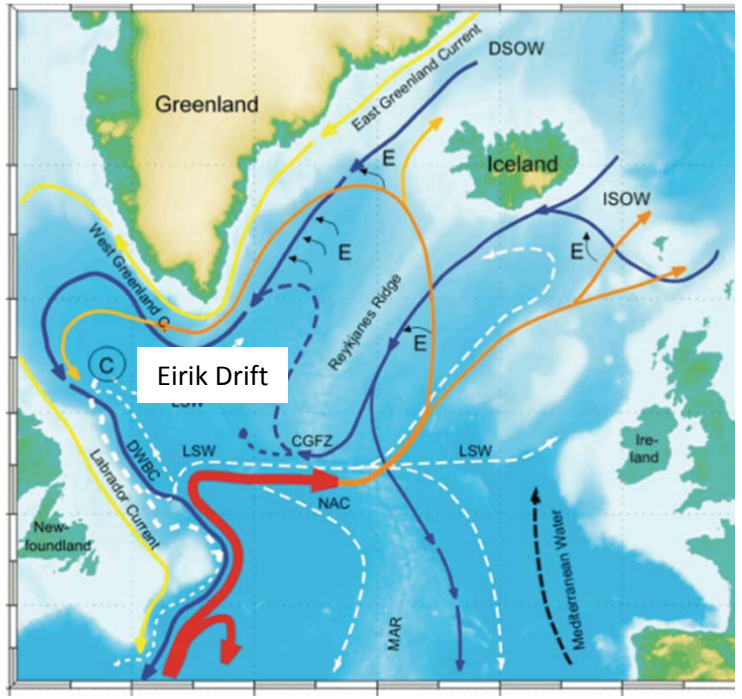
Aim and Method

*To determine whether historical changes in [CO_3^{2-}] and pH since industrialisation have already had discernible impacts on **coccolithophores** and **foraminifers** in high latitude environments*

$^{230}Th_{xs}$: Sediment Drift

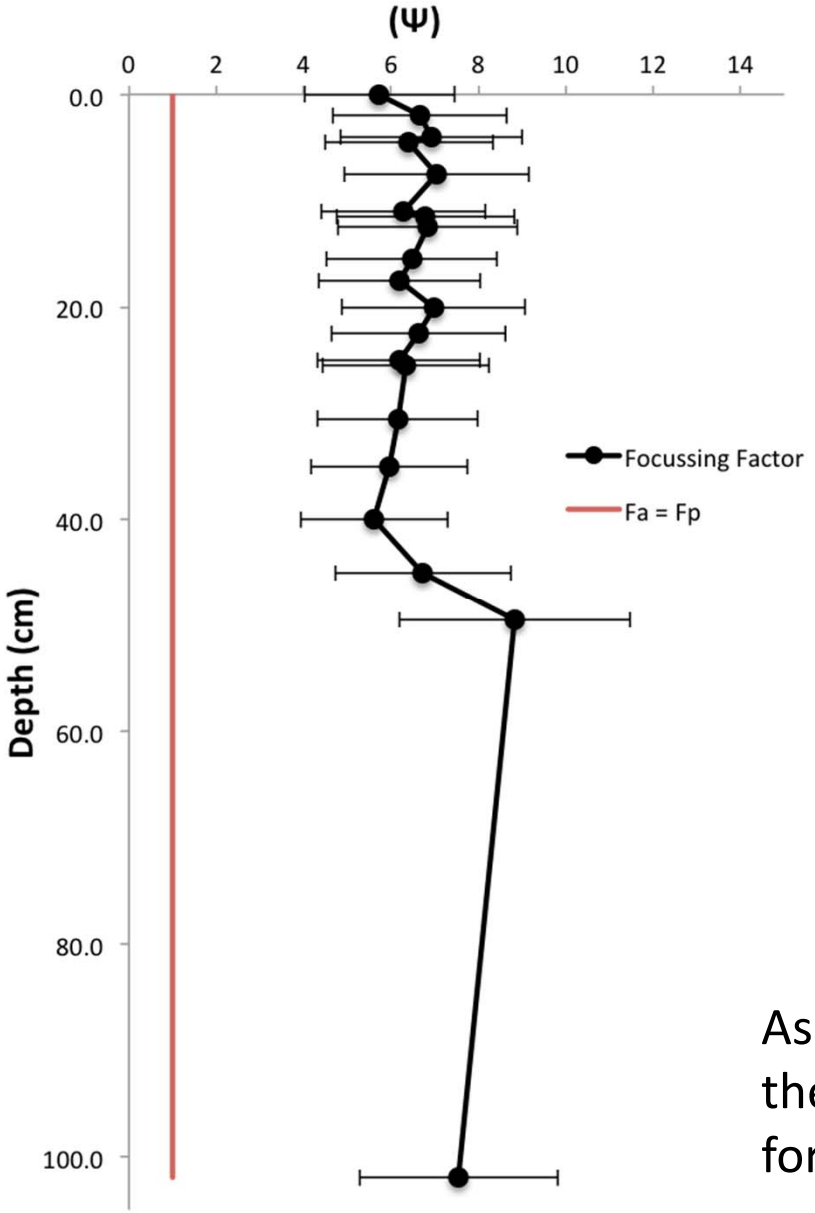


Scholten et al., 1994



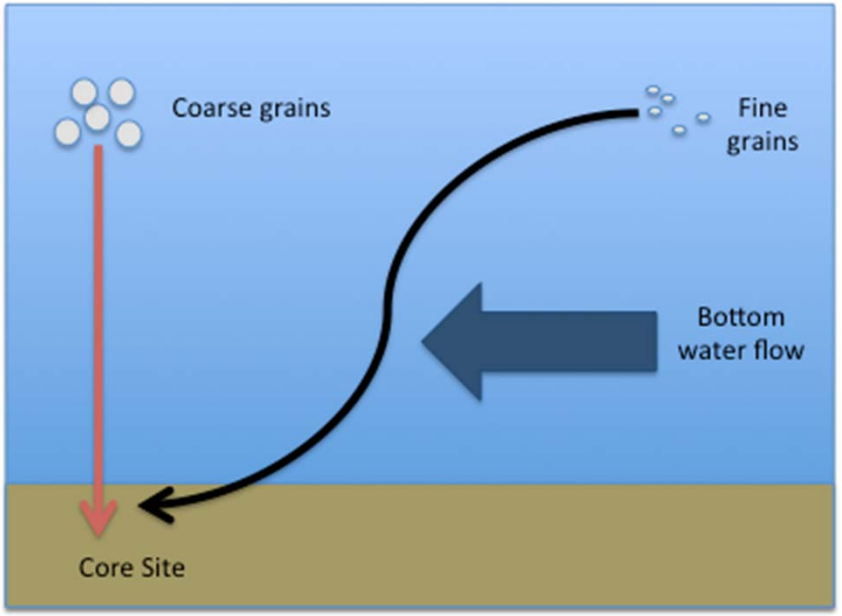
Uenzelmann-Neben, 2009 (Cruise report)

Preliminary Results



$$\Psi = \int_{z_2}^{z_1} \left({}^{0}A^{scav}_{Th-230} \rho \, dz \right) / \left(P_{230} (t_2 - t_1) \right)$$

(Assumption : $(t_2\text{-}t_1) = 0.05$ kyr)



As flow dynamics are **unchanging** with time, there is **no decoupling** between the foraminifera and coccolithophore records.