

Fig. AC1.S1: Expected abiotic I/Ca for different p25[O₂]. The I/Ca takes into account the mean temperature at site by considering linear interpolation between temperature dependant iodine incorporation in calcite (Zhou et al. 2014).

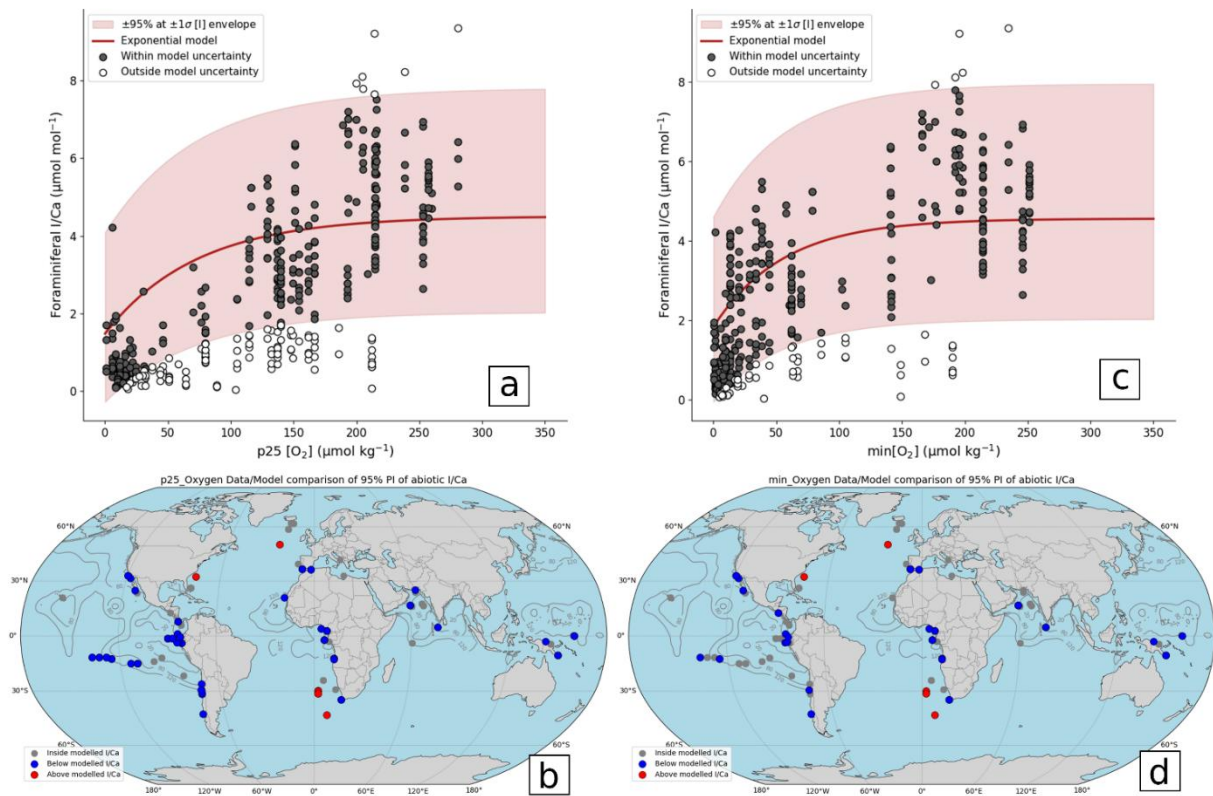


Fig. AC1.S2: Foraminiferal I/Ca ratio ($\mu\text{mol/mol}$) as a function of p25 $[\text{O}_2]$ (a) and minimum $[\text{O}_2]$ (c). Red curve is the exponential model based on iodate proportion (Fig. 3a) and inorganic iodine incorporation at 19°C (Zhou et al. 2014). The red shaded area corresponds to the 95% prediction interval of the iodate proportion with total inorganic iodine concentration at $\pm 1\sigma$ (Fig. 3c). Points that fall into the model uncertainty are in grey. Others are plotted in white. Maps represent data above (red) and below (blue) 95% prediction interval of modelled abiotic I/Ca for p25 (b) and minimum (d) $[\text{O}_2]$. Grey lines represent the presence of low oxygen concentration (20, 80 and 120 $\mu\text{mol/kg}$) in 0–500 m.