

Leseurre, C., Lo Monaco, C., Reverdin, G., Metzl, N., Fin, J., Mignon, C., and Benito, L.: Trends and drivers of sea surface fCO₂ and pH changes observed in the Southern Indian Ocean over the last two decades (1998–2019), *Biogeosciences Discuss.* [preprint], <https://doi.org/10.5194/bg-2022-22>, in review, 2022.

Associate Editor (Jack Middelburg):

I would like to point out a technical issue that requires attention before eventual publication. Your manuscript uses the rainbow color palette and mixes green and red colors in figures. This is suboptimal for readers with color vision deficiencies. I therefore recommend you consult the guidelines in more details for advice on this matter.

Response: We want to thank Jack Middelburg for highlighting this technical issue. Here are the revised figures with new colors. The text will be changed accordingly when we refer to the colors of these figures (color bars in Figure 5 and 6, for example).

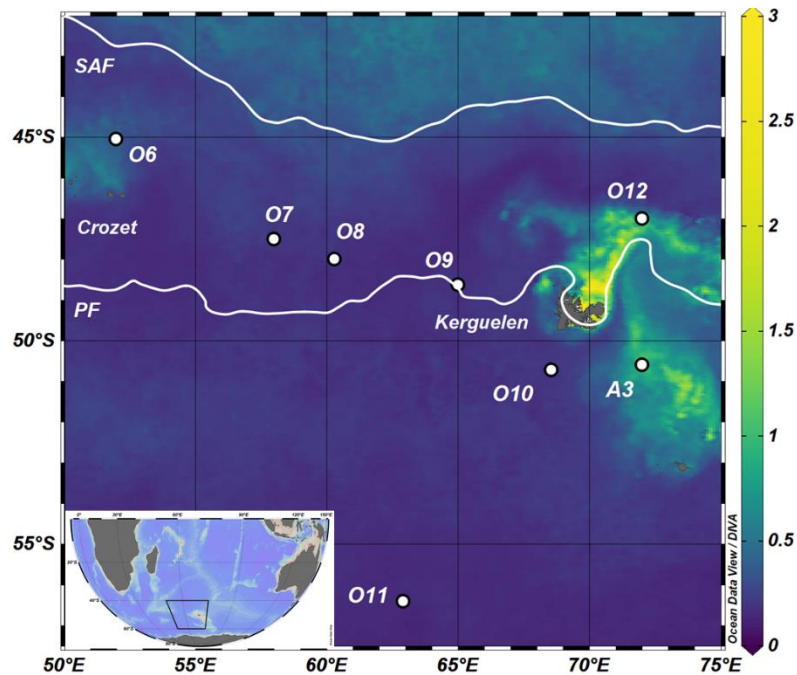


Figure 1. Map of the Indian sector of the Southern Ocean. The eight stations reoccupied are identified by white circles. The two major fronts are represented with white lines: the sub-Antarctic (SAF, 12°C isotherm) and the polar (PF, 5.2°C isotherm) fronts. The background corresponds to the summer climatological surface waters chlorophyll-a concentration (mg m⁻³) (Aqua Modis data generated by Nasa’s Ocean Color <https://oceancolor.gsfc.nasa.gov/> (last access: 15 June 2017); January 2002-2017 composite with a spatial resolution of 4 km). Figure produced with ODV (Schlitzer, 2021).

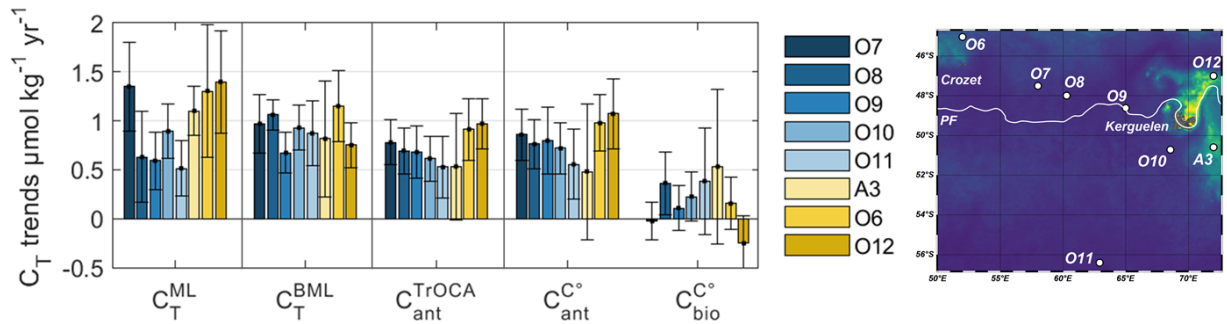


Figure 5. C_T trends in mixed layer (ML) and below mixed layer (BML). Decomposition of C_T^{BML} in C_{ant} (TroCA and C^0 methods) and C_{bio} from C^0 method. The three phytoplanktonic bloom stations are shown in yellow (last) and are separated of the HNLC stations (first five, shown in blue). To help the interpretation, a map with localization of these station is included.

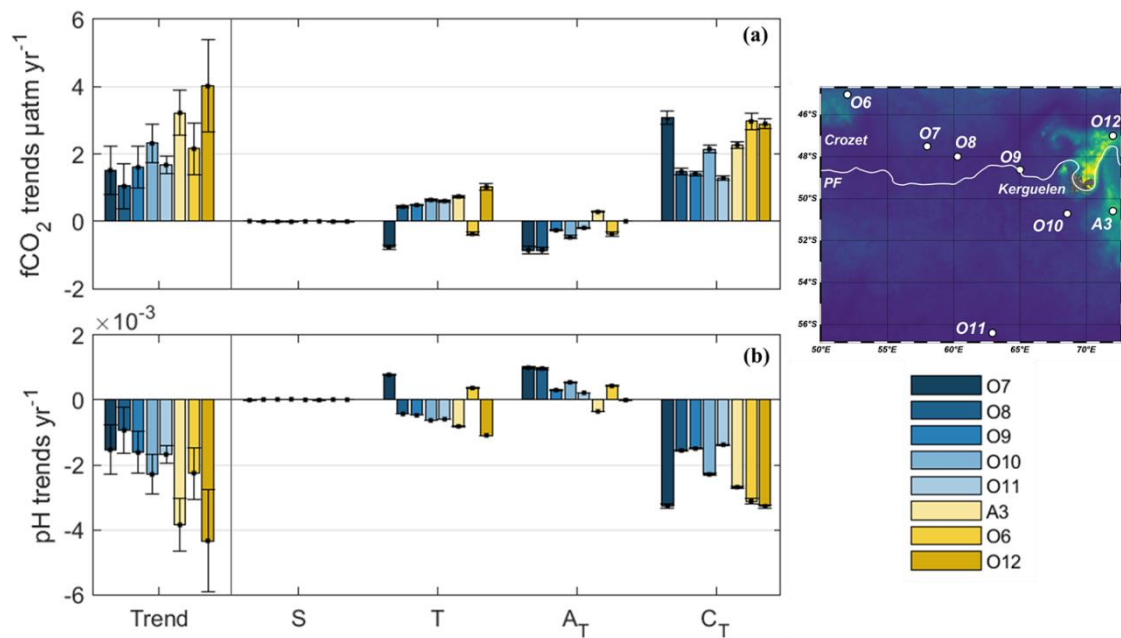


Figure 6. Trends and decomposition of fCO_2 (a) and pH (b) trends in mixed layer, according to Eq. 9. The effect of change in salinity (S), temperature (T), total alkalinity (A_T) and carbon (C_T) is shown. The three phytoplanktonic bloom stations are shown in yellow (last) and are separated of the HNLC stations (first five, shown in blue). To help the interpretation, a map with localization of these station is included.