Response to Referee:

"Timing of the anthropogenic carbon invasion in the Southern California Current"

- line 27: If its approximately 25-26% the uncertainties of 0.05 or 0.06permil are confusing. Please delete them.

Done

- line 68: Define SST as acronym for Sea Surface Temperature

Done

- line 129: SST was already defined in line 68

Corrected

- throughout the draft: It is the "13C Suess effect", not the "d13C Suess effect", correct in lines 225, 265, 295, 303, 351, 356, 362, 391,

Corrected

- lines 248, 249: I understood from the responses to reviewers, that you replace "Keeling et al. 2001" with "Keeling et al. 2005", but the 2001 paper still appears here twice. Please change and delete the 2001 reference, also because the citation is either incomplete or very grey literature (no journal given, no URL given)

Corrected

- lines 258-260: The carbonate ion effect of Spero et al (1997) from lab experiments has not been found in paleo data for the last 160 kyr, see Köhler, P. and Mulitza, S.: No detectable influence of the carbonate ion effect on changes in stable carbon isotope ratios (δ13C) of shallow dwelling planktic foraminifera over the past 160 kyr, Clim. Past, 20, 991–1015, https://doi.org/10.5194/cp-20-991-2024, 2024. Maybe you want to add this to your discussion here.

Added. We included the suggested reference and related discussion were included (line 262-263)

- line 321: use SST instead of sea surface temperature

Done

- line 332: change "HCO_3 "into "HCO_3^-"

Corrected

- lines 592: Replace the citation to Stoll et al. (2025), which is a preprint, with the published final version.

Done