

Authors Response to Associate Editor report

We thank the editor for their careful consideration of our manuscript. All of the technical corrections suggested by the editor have been made in the latest version.

Additionally, for clarification we make the following wording changes to section 3.2:

Additionally, because the surface ocean iron inventory was low, transient dust inputs such as from the Sahara desert could dramatically impact iron availability on the short time scales of particle deposition, sinking, solubilization, and iron uptake. The time scale of these processes relative to changes in biomarker abundance is not well understood (Kunde et al., 2019). Carefully calibrated laboratory datasets relating IdiA and SphX abundance to nutrient-limited growth rates of *Trichodesmium* in both the filamentous and colonial forms would facilitate quantitative interpretation of this data.