

I have the following observations about the revised submission of the manuscript by Booge et al, to BGD.

1. L558-560: Moreover, our data leads to the conclusion that isoprene production rates in the field, irrespective of phytoplankton communities and their abundance, are influenced by salinity and nutrient levels, which has never been shown before.

**Not quite. I urge the authors to consult Rinnan et al. 2014 (PCE) and the references within it, where they review the general point on how isoprene and other volatile emission is influenced by salinity in terrestrial and marine environments. There are several other papers that show a clear link between salinity levels and the extent of volatile emission (halogenated HCs in particular). Isoprene is just one among those volatiles.**

2. L405 to 418 in the revised version

**Throughout the manuscript, the authors have emphasized the importance of differences between species in their responses to changes in temperature, light and other factors. For instance, *Prochlorococcus* is undoubtedly important purely because of its abundance that too in tropical waters. This is not a point of contention. The only thing the authors need to worry about is whether these species that are showing differences in the lab (accumulated from various studies), which the authors used to calculate their EFs, whether they are relevant in the global scheme for marine isoprene. I wish to see a statement somewhere that acknowledges the limitation of pooling emission responses within a PFT, without adequate consideration to their global abundance and relevance. If the authors are keen on species specific differences, then they must have some idea of the species they encountered and not just the PFT during these specific cruises they undertook. Kindly see that any emphasis on the differences between species, cuts both ways. The authors missed the point I made on this, during the first round of review.**

3. L438

**Something odd has crept in L438. There are several places where there are some odd words or missing punctuation that make comprehension difficult. Please sieve the manuscript to get rid of such errors.**

4. L519-521 "This is a high isoprene production rate and we could assume higher isoprene concentrations higher concentrations of haptophytes. This relationship, however, is not evident (data not shown), which may be attributable to other processes masking this relationship"

**These sentences do not read right. There is clearly something missing or wrong. Kindly revise.**

5. On bacterial degradation of isoprene

**I am with the authors when they argue/speculate that isoprene degradation in the oceans can be due to bacterial consumption. It will just be a question of scale. Perhaps, haptophytes even use isoprene to attract bacteria to sustain their heterotrophic lifestyle. But, the evidence is not straight forward, at least not in this paper. Therefore, it is desirable that the phrase 'attributed to bacteria' in the abstract be replaced with "potentially due to degradation or consumption by bacteria". I believe some experiments are in their concluding phase in some labs, and there may soon be some evidence to directly say how bacteria can degrade/consume isoprene.**