Requested minor revisions to gmd-2019-196

L228: Clarify the procedure for boundary conditions applied when running NEMO ocean only model. This paragraph is currently too vague and It's difficult to make sense of it. Clarify what the flux are, what the restoring term is and what the constant coefficient controls. If there is a paper you can cite that would be great, otherwise please include an equation.

L306: "The global simulation, after SST bias correction, ranged with the observation, compared to IPSLCM5A (Figure 2)." "ranged with the observation" is not clear. Do you mean "has the same range of variability as e.g. the 2m temperature over the Mediterranean region from ERA20C " ?

L219 "A first dataset of climatological river discharges is proposed by default to cover the entire Mediterranean draining basin with represents 33 river mouths." What do you mean by "is proposed" to whom, for what? How is it used? Please clarify the text.

"[Reviewer comment]
P7 lines 211-213: how realistic is the assumption that water from the Black Sea is fresh?
And does the Q+P-E budget over the Black Sea derive from the AGCM orARCM?
[Reply]
It is a commonly-used treatment when the Mediterranean model doesn't include the
Black Sea. The fresh water assumption is entirely justified although the actual water
flow from the Black Sea can be salty, since what we evaluated in terms of E, P and
Runoff is indeed the fresh water budget. What is important in the model is not the water
mass itself, but the salt content. We made some revisions in the new manuscript for this
regard."
I can't see how and where you have addressed this point. Please clarify with citation of the text.

"[Reviewer comment]
P14 lines 362-364: Figures 2 and 4 show that your simulation results in significantly
lower temperatures than observed, yet here you say they are consistent?
[Reply]
Yes, there are cold biases. We changed the corresponding text in the revised manuscript
"The atmospheric simulation is acceptable compared with observations for the air
temperature at 2m at both global and regional scales "(l405)."
I am not satisfied with how you have addressed this point. Changing the word "consistent" with
"acceptable" just makes a wrong statement into something vague and subjective. Please quantify
and describe the cold bias and discuss the implications here.

"[Reviewer comment]
P22, lines 522-525: what do you mean by the reference for correction is the preindustrial
state? How is river runoff corrected based on pre-industrial climate?
[Reply]
We choose to "correct" the Mediterranean river runoff during the Early Holocene based
on the precipitation difference (EHOL – PICTRL) coming from both the ARCM and
AGCM and apply it to the PICTRL river runoff (which was prescribed). The procedure
of river runoff is detailed in the supplementary material (**Text S2: Bias correction**)"

This point hasn't been addressed adequately, please correct the text when you make reference to the "correction" to clarify that you apply a bias correct as described in Text S2.

Editorial corrections (suggested changes in bold):
L 153: "This architecture is based on a method **that provides** as much **compatibility** as possible among**st** the models used and high **consistency** with data."

L224L "river mouths **that** cover the …"

L330 " both the precipitation and evaporation over the Mediterranean Sea in HIST **are** very close to the observations" Quantify how close.

L331 "**The** two other simulations **included in Table 1**, PICTRL and EHOL, are those designed to investigate**s** the Early Holocene climate **(see Section 4)**."

L407: "The ZOF **in HIST depicted in Figure 6)**"

Figure 6: replace row numbers with figure labels (a-h)

L425 It is not correct to say "ranges with the observation". Do you mean "has the same range of variability as the observations"