Dear Luc Beaufort,

We would like to thank the anonymous referee and F. Bassinot for taking time to review our manuscript. Their comments were insightful and constructive. We have answered all questions raised by the referees and made changes according to their suggestions. A revised version of the manuscript is now ready. The major changes are:

- We added Heiko Pälike as a co-author. His involvement in the manuscript and the science was already very substantial and his further help during the rewrite justifies his place on the author list.
- CPD figure 3 has been split into CP figures 3 and 4. And CPD Figure 6 has been split
into CP figures 6 and 7.
- The differences between the sites are shown in CP Fig 4 and the local oceanography is discussed in the results and discussion section.
- CP figure 7 is added to further clarify the major findings
- CPD Fig. 5 has been removed because we think the added value of this graphs was limited and it was already partially covered by CPD Fig. 4 (CP Fig. 5).
- A more critical evaluation of the modeling results is added to the manuscript. For further changes in the manuscript and the detailed comments on each point raised by the referees we would like to refer to the rebuttal (supplement to this comment).

We would like to thank you for editing this manuscript.

Kindest regards,

Diederik Liebrand and co-authors.

Please also note the supplement to this comment:

Interactive comment on Clim. Past Discuss., 6, 2741, 2010.