

Interactive comment on “Effect of salinity induced pH changes on benthic foraminifera: a laboratory culture experiment” by R. Saraswat et al.

R. Saraswat et al.

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Reviewer’s Comment: I share the concern of referee 1 that these experiments do not enable to distinguish the effect of salinity and pH.

Authors’ Response: We once again state here that the objective of this experiment was to understand how seasonal salinity changes affect shallow water benthic foraminifera. A significant salinity change (10–36 psu) is observed in coastal regions. We tried to understand how it will affect the benthic foraminifera, which are abundant in such shallow water regions. Since we were interested to understand, how salinity change leads to dissolution, we measured the pH and now alkalinity also. We infer that seasonal salinity variations also cause change in pH which in turn leads to dissolution of calcareous foraminifera.

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Reviewer's Comment: However, the method used to measure salinity is not described and values are reported with unit ‰. I would also like to highlight problems with units.

Authors' Response: The salinity was measured by using autosal. We agree with the reviewer that we used obsolete units to express salinity. The same has been rectified in the revised manuscript.

Reviewer's Comment: The method used to measure pH is not described.

Authors' Response: The pH was measured by Labindia PHAN microprocessor controlled pH analyzer with a precision of ± 0.02 pH units and ThermoScientific Orion Star A329 multi parameter meter which has a precision of ± 0.01 pH units. For pH measurements, the electrode was standardized by using NIST buffers of pH 4, 7 and 10 at 25°C.

Interactive comment on Biogeosciences Discuss., 8, 8423, 2011.

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