

## Interactive comment on "Effect of increased $pCO_2$ on early shell development in great scallop (*Pecten maximus* Lamarck) larvae" by S. Andersen et al.

## S. Andersen et al.

ellens@imr.no

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The authors thank Anonymous Referee #3 for useful comments.

The larvae were not fed since we were mostly interested in the earliest effects (to veliger stage d3), and because the effect on starved larvae also was interesting. The authors think that larvae in the sea may experience shorter or longer periods of food scarcity, so unfed larvae may not be uncommon in nature. The authors are aware of the importance of energy status for effects of stressors, and this will be further addressed in the manuscript. A table with overview of methodological differences of bivalve work will be included, and also overview of the interpopulation and interspecies variation will

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be addressed.

The authors will consider to include a hypotheses.

The authors will consider to include publications on echinoid larvae, e.g. the suggested Brennand et al. 2010, that also presents results from short term experiments on unfed larvae.

All linear regressions will be deleted and the statistics will be revised

P 3289 The sentence "In day 7 veligers both hinge and edge deformities was observed" will be corrected to "In day 7 veligers both hinge and edge deformities were observed"

The authors will consider simplifying the results chapter 3.3 to avoid switching back and forth between normal and deformed shells. Also, changing the term "ratio" will be changed to "percentage".

In para 4.1 the authors will delete repeated sentence.

The discussion will be revised, and information from an overview table (other drivers) used. The authors will correct the mixed use of pCO2 ( $\mu$ atm) and CO2-concentration (ppm).

The discussion will be revised, and the authors hope that with help from the constructive comments given by the referees it will be improved and more systematic. The authors will also include some suggestions as to how future experimental design can be improved.

Legends and graphs will be revised, and regressions deleted. This will also include the use of bars in Fig.6

Interactive comment on Biogeosciences Discuss., 10, 3281, 2013.