



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_14413
Title of the Manuscript:	Seasonal occurrence of Gymnodinium catenatum and Paralytic shellfish Poisoning in the Mediterranean shore of Morocco

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
1. It is my opinion that the authors did not respond adequately to the comments provided in the first review. Particularly in regards to the toxin analysis. The reader cannot determine what analyses were done based on the information provided even in this revised manuscript and therefore cannot make an informed decision on the validity of the authors conclusions. I like that the authors now provide reference to the regulatory guidance level for saxitoxins in the manuscript and figures and the data showing the correlation between G. catenatum and PSP levels in shellfish is useful and worth reporting. But one of the other major aspects of the paper is the description of hydroxybenzoate analogs of saxitoxin for the first time in these waters, especially considering that these are not typically monitored for and it is not known how their presence will affect total toxicity and therefore human safety. Even in this revised manuscript the exact method of toxin analysis is unclear. The authors have added reference to Lawrence et al (2005) in the references section but I cannot find this reference anywhere <u>in the text</u>. The authors reference Vale et al. (2005) for details on the oxidation conditions used but a brief description of these methods should be include here as well. Particularly considering several of the toxins shown here were not included in the validation of this method by Lawrence et al. It should not be the responsibility of the reader to acquire other references to see what was done, especially considering that the authors are using this data to make conclusions about the presence of these toxins for the first time in this area and no standards are available that could have been used to show this more conclusively. It should be noted that the full reference for Vale et al. 2005 was not included in the first submission and the title is still not included in this revised version. 2. In figure 3, it would be helpful if the X axis for the 2 panels were aligned so that retention times could be lined up easier. Especially considering that the retention times or chromatograms of standards are not provided. 3. The authors discuss in the response to the reviewer that natural water samples were not available for testing and that the chromatogram for G. catenatum provided is from a laboratory culture. Even though this was not a major focus of the study, the authors should mention in the text that the differences seen between the toxin profile in the dinoflagellate and the toxin profile provided for shellfish in figure 3 could be due to this, because toxin profiles in culture are often very different for toxin ratios compared to natural water samples. The authors have also added in this revised version that only a single mussel sample was analysed by HPLC in this study. It is recommended that a paragraph be added at the end of the conclusions discussing future research needs covering some of these issues, including a lack of standards for many of the toxins reported here and the need for additional methods of confirmation such as mass spectrometry.	Description of mouse strain and assay calibration were added. Method description was improved, but method was described in detail previously. Corrected. Toxins were identified with by match of retention time and fluorescence response (a confirmatory wavelength, and a spectra whenever possible) with those from a cultured microalgae strain known previously to contain GCs. Fig. 3 was improved. Comments regarding loss of the sulphate group at C11 were added. research needs added.