**Author's response to reviews**

**Title:** Chemical characterization and assessment of antioxidant and free radical scavenging activity of Streptocaulon sylvestre Wight, an endangered plant exclusively found in the sub-Himalayan plains of West Bengal and Sikkim

**Authors:**

Priyankar Dey (priyankardey28@gmail.com)  
Sandipan Ray (ray.sandipan.bot@gmail.com)  
Mousumi Poddar Sarkar (mpsarkar1@rediffmail.com)  
Tapas Chaudhuri (dr_tkc_nbu@rediffmail.com)

**Version:** 3  
**Date:** 23 January 2015

**Author's response to reviews:**

Reviewer 1

Comment: This manuscript describes an endangered plant exclusively found in the sub-Himalayan plains of West Bengal and Sikkim (Streptocaulon sylvestre Wight). Several aspects were investigated. The manuscript provides large information on pharmacological activities and the chemical characterization of the plant. The authors have well defined the question posed and well-structured their manuscript. Moreover, the discussion section is developed in single chapter which is not always done in other articles and the content is satisfyingly. However, conclusion contains some elements that, in my opinion, have not relation with the objective of the study.

Reply: The authors are thankful to the learned reviewer for the expert comments on the quality of the manuscript. The reviewer has rightfully identified certain elements in the conclusion section which had no relevance with the pharmacological activities or phytochemical status of S. sylvestre. Therefore, according to the reviewers valuable suggestion we have now removed those elements from the conclusion section.

Comment: Further, there are some scientific aspects that need correction:

- **Minor Essential Revisions**
  1. Figure 7, the chromatogram presented is at which wave length of 254 nm, 275 nm, 280 nm or 320 nm? Please specify!

Reply: The HPLC chromatogram presented in the manuscript represented 275 nm wavelength. This information has now been incorporated in the figure legend.

Comment: Additional files 1 and 3 provided with this submission are not necessary.

Reply: As per the reviewers comment we have now removed the superficial informations from the supplementary data. However, S. sylvestre being a rare plant, we retained the images of the plant in the supplementary data. These two...
images show the growth of S. sylvestre in natural habitat as well as we believe, that this would help future researchers in identifying this rare plant in natural condition.

Comment: Line 206 pp9: The pellet congaing protein…. changed by (The pellet containing protein…..).
Reply: Correction made as per the reviewer’s comment.

Comment: Line 321 pp14: ……. the acetone and aqueous extract changed by (……. the acetone and aqueous extracts)
Reply: Correction made according to the reviewer’s comment.

Comment: Line 366 to 371 pp16: The first part of the conclusion is not in relation with the study. I do not think it is necessary to keep.
Reply: The learned reviewer rightfully identified some superficial information in the conclusion section which had no relation to the aim of the study. Therefore, we have now removed the aforementioned part form the conclusion.

Comment: There are many misprints in the references:
-Line 394 pp17: the space: relationships within.
-Lines 417 pp18; 448 pp19; 469 and 475 pp20; 477, 478, 479, 481 and 485 pp21; 504 and 508 pp22; 530 pp23.
Reply: Corrections has been made as pointed out by the reviewer.

Comment: Discretionary Revisions 1.
-The title is too long; 2.
Reply: We have now shortened the title of the manuscript as suggested by the learned reviewer.

Comment: The HPLC and GC-MS data are presented without SD. Were the analysis repeated?
Reply: In the present study, SSME was chemically characterized using HPLC and GC-MS techniques to elucidate its phytochemical composition. In this regard, we would again like to emphasize on the fact that S. sylvestre is an extremely rare plant. Our university has taken an initiative for conservation of the plant. We had collected very little amount of the plant material grown (cautiously maintained by our research unit) in our departmental garden which did not hindered further growth of the plant in its natural habitat. Moreover, the yield of the methanolic extract was very less. Therefore, at the end of the extraction process, we got a nominal amount of the extract with which we had to perform all the analysis that too in multiple sets.

As mentioned in the ‘statistical analysis’ section of the manuscript, all the quantitative assay including HPLC were performed in six sets and GC-MS was performed in three sets. In GC-MS, among the three runs, the best chromatogram and its associated compounds which were repeated in other two runs were enlisted in the manuscript. Moreover, the GC-MS analysis was qualitative analysis which only revealed the presence of certain phytocompounds. It had nothing to do with qualitative analysis. Therefore
standard deviation in the present GC-MS analysis had no relevance. In case of HPLC, six runs were performed and as per the reviewers suggestion, we have now represented the quantification data as Mean ± SD.

Level of interest: An article of importance in its field.
Quality of written English: Needs some language corrections before being published.
Reply: The authors have went through the manuscript and modified the language wherever applicable. Moreover, we have also corrected some grammatical mistakes and typological errors in the manuscript.
Statistical review: No, the manuscript does not need to be seen by a statistician.

Reviewer 2
Reviewer’s report: Minor Essential Revisions
Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Authors reply: The authors are grateful to the learned reviewer for reviewing the manuscript.