

Reviewer Report

Title: Draft genome of the Peruvian scallop *Argopecten purpuratus*

Version: Original Submission **Date:** 12/29/2017

Reviewer name: Kevin Kocot

Reviewer Comments to Author:

In this study, the authors sequenced and assembled the genome of the Peruvian scallop *Argopecten purpuratus*. The science seems sound but many important details are omitted. I don't see the relevance of the phylogenomic analysis placing scallops among metazoans to the objectives of the study. That same is true for the number of genes present in diverse metazoan genomes. Aside from a significant number of spelling, spacing, and grammatical corrections that need to be made, I have a number of questions regarding the methodology and other details that are lacking: Line 48: insert "the" before "Chilean" Line 51: Correct "stenotherm" to "stenothermic" Line 59: Was adductor muscle used? Line 61: I suggest replacing "The traditional" with "A" Line 63: Substantially more detail is needed for library preparation than currently provided ("standard protocol"). How was the DNA sheared? Which libraries were paired-end and which libraries were mate pair? Line 66: I think there is a run-on sentence from lines 66-68. It is unclear what is meant by "to optimize for the most high-quality and longest reads" currently. Line 68: Insert a space after "(" and change "the 10X" to "a 10X" Line 76: How were the raw reads trimmed? Line 81: Why was a 17-mer selected? Line 133: Correct "Mollusks" to "molluscs" and "Lottia gigantean" to "Lottia gigantea" Line 140: No information is presented as to how the transcriptome data were generated. Was adductor muscle used? Line 210: Kocot et al. 2011 and Smith et al. 2011 (both published in Nature) would be appropriate citations here. Line 212: How was the molecular clock calibrated?

Level of Interest

Please indicate how interesting you found the manuscript: An article whose findings are important to those with closely related research interests

Quality of Written English

Please indicate the quality of language in the manuscript: Not suitable for publication unless extensively edited

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