

## Reviewer Report

**Title:** The genome of the Marco Polo Sheep (*Ovis ammon polii*)

**Version:** Revision 1      **Date:** 10/6/2017

**Reviewer name:** Jon Slate

### Reviewer Comments to Author:

The authors have done a good job of addressing the reviewers' comments. The brief discussion of adaptation-to-altitude related genes definitely adds something to the manuscript, and it is satisfying that some previous candidate genes are in the list reported here. I have only one minor comment, and that concerns the heterozygosity analysis. I think the authors are probably justified in including this section, because although it is based on just one animal, it is presumably possible for researchers studying other sheep breeds to perform similar analyses and make comparisons. I wonder whether the 14% of the genome that is highly homozygous - I think this is a better word to use than 'homogeneous' (line 152) - could be due to recent inbreeding, and that the remainder of the genome is more useful for comparing levels of diversity between Marco Polo sheep and other sheep? I'm not proposing that the authors analyse these regions in any more detail though.

### Level of Interest

Please indicate how interesting you found the manuscript: An article of importance in its field

### Quality of Written English

Please indicate the quality of language in the manuscript: Acceptable

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