

Reviewer Report

Title: Draft genome of the Reindeer (*Rangifer tarandus*)

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Reviewer name: John McEwan

Reviewer Comments to Author:

This is an extremely useful paper to those that are interested in farmed ruminants especially cervids. There are some minor typographical errors which are described below and several minor queries whose answers would improve the text. I checked through the ftp site and the annotation information looks very good and useful. I did not however, download and check each file. CommentsMajorI am rather confused as nowhere in the text is it described how the assembly scaffolds were ordered and aligned into chromosomes and or genome order. This is important as a number of analyses depend on this aspect. For example the genome comparison with goat (Figure S3V5) and I note the axes of this figure are also cryptically not annotated with either bp or chromosome numbers. I suspect that this did not happen except via homology comparison with another species (sheep or cattle, maybe goat?). Why raise this point? Well to me a high quality assembly actually rests on the scaffolds being ordered and orientated based on data like Hi-C, optical mapping, linkage mapping, LD mapping, or radiation hybrids of which there is no mention. This aspect needs to be clarified and described and commented on.minor* line 19 "species" rather than "specie"* line 58 The DNA extraction method (and reference) are not described. It is also impossible to call blood frozen and then presumably thawed "fresh blood". This makes me suspect this aspect is unclear to the authors.* Table s1 needs web address for the deposit numbers* line 153 I suspect figure 1 = figure S7? Figure 1 the precision in the estimated divergence times is excessive and the legend should be altered to make clear it is a range.* line 168 "he" should be "the"* line 172 "libraries" should be "library"

Level of Interest

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

Quality of Written English

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