

## Reviewer Report

**Title: A Near-Chromosome Scale Genome Assembly of the Gemsbok (*Oryx gazella*): An Iconic Antelope of the Kalahari Desert**

**Version: Original Submission**    **Date: 10/31/2018**

**Reviewer name: Joshua Moses Miller**

### Reviewer Comments to Author:

In this work FarrÃ© and colleagues present a genomic assembly for the gemsbok, and African ungulate with interesting adaptations. Using a combination of sequencing and bioinformatic methods the authors have created a chromosome level assembly with a high content of BUSCO genes. This assembly will serve as a reference for future studies of the unique adaptations of gemsbok compared to other ungulates. Overall, I think this is a well written manuscript that applies the latest techniques for genome assembly and annotation. My major comment would be that I think a circos plot of chromosome synteny in the gemsbok compared to domestic cattle would greatly add to the manuscript. Especially given the amount of attention given to the Reference-Assisted Chromosome Assembly tool.

Along this line, I noted that in the introduction it is stated that gemsbok are predicted to have 56 chromosomes, but the final assembly only contains 47. Can the authors comment on this discrepancy? Are these "remaining" chromosomes especially small?

### Level of Interest

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