

Reviewer Report

Title: Myth-busting the provider-user relationship for digital sequence information

Version: Original Submission **Date: 9/8/2021**

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Reviewer Comments to Author:

The authors extract country names from gene sequence data in "traditional" ENA database and compare them with the country names of submitters to provide data-driven proof of the myth about the relationship between providers-users relationships for digital sequence information. I also implicitly believe in that myth. This verification has important implications for future handling of DSI. There is much room for debate in this manuscript, but I think it is important to ask the world as soon as possible. I make some points about this manuscript.

1. The Nagoya Protocol has prompted a major shift in the use of genetic resources. I think authors should also discuss the year of registration for digital sequence information. (Specifically, before and after the Nagoya Protocol) (It is desirable to provide actual data, but this time I will only seek the views of the author.)
2. The authors focus only on ENA's "traditional" gene sequence information (data corresponding to NCBI's GenBank). Regarding digital sequence information, NGS is currently being actively used, and data is also being accumulated in SRA (sequence read archive) at a tremendous pace. In addition, recent MinION devices can acquire digital sequence information on the spot without taking genetic resources out of the country. The lack of this data is a flaw in this manuscript, but at least the authors can discuss it in the manuscript, I think.
3. In recent years, there has been a movement called "museomics" that extracts DNA from museum specimens and obtains digital sequence information. Museomics contributes to Ancient DNA and Taxonomic clarification. ENA/GenBank/DDBJ also has a "specimen_voucher" field, which already has hundreds of thousands of digital sequence information with this data (<https://doi.org/10.3897/biss.5.73787>). Does this have any effect on this study? Should DSI from museum specimen be excluded from the statistical processing in this study? (Authors don't have to mention this in the manuscript)

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