**Author’s response to reviews**

**Title:** Should DNA sequence be incorporated with other taxonomical data for routine identifying of plant species?

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Reviewer reports:

Hayssam Mohamed Ali (Reviewer 1): I commend the authors for their work on Bar-HRM of medicinal plants from Thailand and Genbank.

* The introduction is well-written. However,

* some recent references tackling the application of barcoding on medicinal plants are lacking such as:


Reply: Added

* The traditional sequencing methods should be compared to Bar-HRM

Reply: Yes, this is a good point. We already looked at the sequences retrieved from GenBank.

* The material and methods are acceptable and following known methodology.

Reply: Thank you
* In the conclusion part you stated the pros, however the cons had been neglected.

Reply: Added

* Supplementary material files are without tables!

Reply: We did uploaded it, so maybe it is a system error. Really sorry for this.

Thank you for your comments.

Reviewer reports:

Bhaskaran Sasikumar (Reviewer 2): The language needs thorough revision. Please see the annotated MS attached for other comments.

Reply: Thank you very much. All corrections have been accordingly done.

Thank you for your comments.

Reviewer reports:

Arunrat Chaveerach (Reviewer 3): Actually, they are so many species in many genera and families can not be used barcode regions for identification as of they are short sequences and from some partial gene sequences. The efficient regions frequently trend to be non-coding regions such as trnH-psbA spacer, ITS, this is the first problem. the second, DNA extraction from finished products is the second problem. The single sequence of nuclear genome contains ITS region, not much copies as chloroplast DNA. The DNA barcode fragments frequently different sizes in the genera, families, may be in the same family. With many reasons, I think, the ms Topic should be changed.

Reply: Thank you for the points, the title is changed.

Please edit trnH-psbA to trnH-psbA spacer region.

Reply: edited
ITS region for identical species Clinacanthus nutans and Clinacanthus siamensis is not new information as of The Plant Lists of Kew and Missouri Botanical gardens insisted that Clinacanthus nutans is the accepted name, Clinacanthus siamensis is the synonym, but just only supported data. However, which one is the species each as of they are the same.

Reply: Yes, you are right. We pointed out this according to the Queen Sirikit Botanic Garden’s database.

If the author use the topic as Acanthaceae, the controls required have many more species studying of the family in Thailand. Because of a little variation in the barcode short sequence of each species in a genus can be occurred in the plant growing in varied areas as in different growth factors. The conclusions should be covered to the scope of the investigated plants, not quoted all the family. The authors can change for the scope of the investigated plants instead of extensively studied species of Acanthaceae, because of a small number of each studied genus and above mentioned reasons.

Reply: Yes, this is a good point to be considered. We therefore made changes by adding ‘the tested’ or ‘the studied’ or ‘the selected’ Acanthaceae plant species to be more specific on the point that not all species in Acanthaceae were included in this study but we concluded based on only the species we have.

Thank you very much for your comments.