

Review for “Babette: BEAUti 2, BEAST2 and Tracer for R”

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Review

I write this because I want to contribute to make the manuscript better highlighting what are the parts that might be changed in a better way. These are just suggestions, my two cents: feel free to reject them if you are not convinced.

Here I will refer to lines’ numbering in the PDF file you sent me.

Summary

- (from line 5 to line 17) Indentations of the 4 points have different spacings;
- (line 5) Change the indentation on the first line;
- (line 7) I am not sure that it is right to use Oxford’s comma in that way. I am used to see that in a list of three or more elements, right before the last one of the list;
- (line 10) I would add “cumbersome to work with” or “cumbersome to handle”;
- (line 11) Maybe using a colon in place of a comma after babette could be better;
- (line 18) Missing the full stop.

1 Introduction

- (line 29) Maybe “alignment” is better at the plural?
- (line 37) I’d start the first sentence with “however”;
- (line 56) Does “parameter” need a genitive form?
- (line 58) Same as for line 11;
- (line 69) It is the first time you mention ultrametric trees: do you need to give at least a bit of explanation on that?

2 Description

- (caption fig. 1) change “babette” font;
- (line 74) I would change “in a similar way that” with “in a similar way to what”;
- (line 79) Maybe I am wrong, but I guess that “for each alignment” is better than “per alignment”. I don’t completely understand the meaning of the sentence. In case, I am sorry :D;
- (line 86) Typo: correct with “to be extended”;
- (line 88) You say: “one function is a wrapper function”. First I feel like the repetition of the “function” is a pleonasm. Second: which function is doing that? Maybe it is worth to specify it (in a bracket, as I understand you just want to give a general overview of all the suite);

3 Examples

- (line 99) “and likewise” makes me wonder. Isn’t it better to use “as well as” or just “like”?
- (line 109) why “execute a BEAST2 with that file”? Is the “a” a typo?
- (table 1) this is not related to the article but more to babette itself: why don’t you name your functions in such a way the names themselves can highlight a hierarchy/structure? Example: you have functions to use site models: i would name them (to give a few examples): “create_site_model_gtr”, “create_site_model_hky” and so on. Same thing for distributions and tree priors: “create_tree_prior_bd”, “create_tree_prior_cbs”, “create_distr_beta”, “create_distr_poisson”. In this way the user can have a better understanding on how things are organized just looking at the names and they are easier to handle also if the user wants to use TAB for the auto-completion of the call. Example: suppose I am approaching babette for the first time and i want to use a tree prior: I open my RStudio, load babette and type “create” then TAB so I can see all the functions described in table 1; then if I want to check all the tree priors I just type “create_tree_prior” and TAB again so I can see all of them and then choose (which it would be really easy as the names you chose are really self-explanatory).
- (line 137) this looks like a repetition of what you already wrote in line 112. Leave only one of them;
- (line 167) maybe “burn-in” is better if written in quotation marks;
- (line 169) is the 10% burn-in the default setting in tracer? why is it not default in babette?
- (line 177) while “calc” is easily readable as a short-hand for “calculate”, “sum” can really be confused with the verb “to sum”. You teach me that function names must tell and not be confusing;
- (line 177) why there is a asymmetry between calc_esses (who requires that you call first “remove_burn_ins”) and calc_sum_stats (which has a built-in remove_burn_ins call)?

4 Babette development and other resources

- (line 2012) I don't understand "has a guidelines how to do so". Is it better "has guidelines on how to do so" or some other forms?

Final remarks

In the introduction I like your choice of presenting why it might be so frustrating to use BEAUti and BEAST2 and why babette is the software we always needed to use instead. I like the fact that you chose to write the article showing first how to do stuff with BEAUti and BEAST2 and then you present how simple it is to do the same with babette. I think the style is pretty concise and readable. I like the choice of the table and I think Figure 1 is very clear.

The only thing I don't like is the name "babette". I mean, it is surely cool but it doesn't suggest in any way what the package is doing: I think that with a more self-explanatory name (like BEAUtieR) people will find and use your package way more easily.

I think you've done an excellent job. The package will be amazing and will help a lot of people. I totally support this project of yours.