

EC1:

EDITOR: I thank the authors for the improvements in version 4 of their manuscript. Unfortunately, I do still see some adjustments needed in regard to two of the points raised in my comments on version 3.

AUTHORS: OK, we have worked on this, see below. Thanks for your comments!

EDITOR: Page 5, last paragraph: I still see some need for additional clarification of the method. Especially the part on model selection in the last line of page 5 remains unclear. If “a Gaussian linear mixed model” is used, where does the model selection come in there (“a” model implies for me there is only one, so where is the choice made? Or is “model” used here in a different meaning?). In the first lines of page 6 I still do not understand what the whole concept of terms entering the model is about. Why does sequence matter? My guess would be that it is about linear terms explaining a certain part of the probability but the reader is still left guessing.

AUTHORS: OK, we have re-written part of this paragraph. In the journals we usually publish in, the explanations are relatively short, so as we described them in the first revision. But across disciplines, this may not be as straightforward, therefore we have added again more background. Actually, we ran two models, one each for dive depth and dive duration, respectively. To get the relevant p-values for the lmer-output/the output of a linear mixed model using ‘lmer’ either the functions ‘anova’ or ‘drop1’ are commonly used. ‘Anova’ returns sequential frequentist F-tests, i.e. the order of the predictors is relevant, while ‘drop1’ returns marginal frequentist F-tests. The latter tests for the same term whether it explains the remaining variance significantly after having corrected for all the other terms in the model (Korner-Nievergelt et al., 2015). That is why we chose to use drop1 instead of anova for testing the influence of each predictor on the respecting response variable.

EDITOR: Page 6, lines 24-30: Please add a sentence clarifying that the analysis will be done for more birds in a separate study.

AUTHORS: Done.