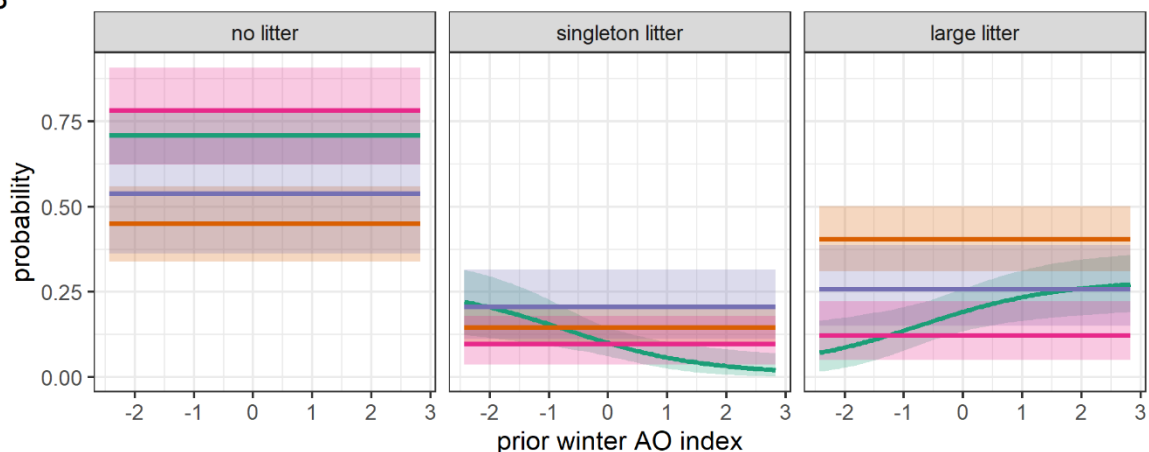Dear Jean-Michel Gaillard,

Thank you for your comments. We implemented the changes you recommended.

We also added the link to the repository where we deposited all the data used in the analyses. We also added a link to a GitHub repository where the code used in the analyses presented in the main text is available (along with the data). Since as far as we know, there is no "Code Availability" section in Frontiers, we included this GitHub link in the "Data Availability" section.

We also found a minor mistake in the scaling of the covariates included in the logistic regressions. We corrected this mistake. This has led to slight changes in the posterior distributions. *PriorWinterAO* no longer has a significant negative effect on litter size for females aged 10-15. Therefore, we made the following changes:
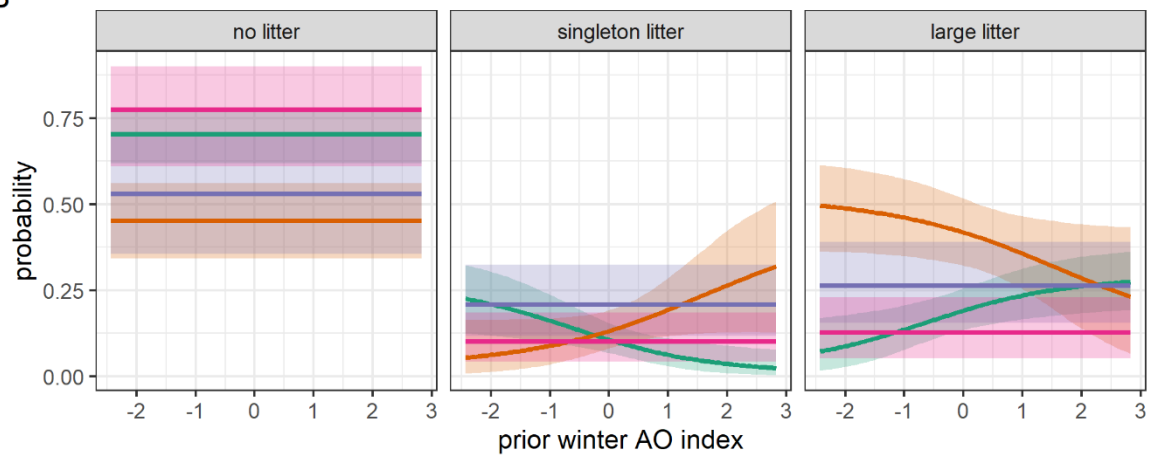
- L 403: we removed "whereas it decreased for females aged 10-15"
- L 608: we replaced the sentence "The most striking example is that of the effect of winter AO index in year t-1 on litter size, which was positive for females aged 5-9 and negative for females aged 10-15 (Fig. 7B)." by "A striking example is the effect size of the spring AO index in year t-1, which was 6 times higher for females aged 16-20 than it was for females aged 10-15."
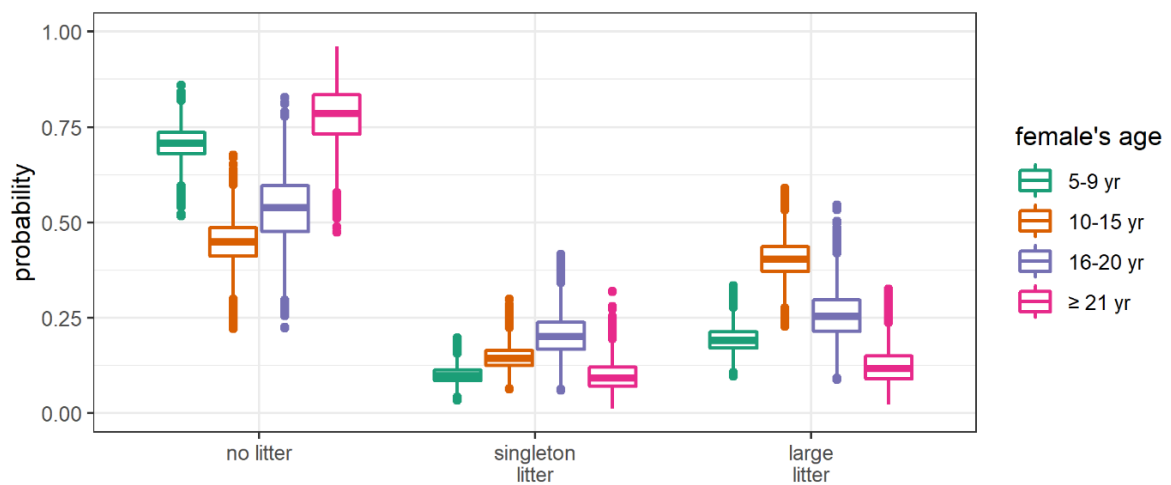- The panel B from figure 7 is now:

Instead of:

Nonetheless, these changes have not affected the overall findings or interpretation. E.g. compare the current graph of age-specific probabilities to the previous one:

Instead of: