Intro:

- Make a Venn diagram with the different kinds of traits and where they overlap,

giving examples, in the introduction.

* Figure 1.2 (line 218)

- More distinction between responses to climate and climate sensitivity in the

introduction.

* I amended the paragraph from line 258 to 274

Functional trait correction in box 1 of chapter 2.

* Box page 39

Chapter 4:

- Scale issues: for species with large range size particularly, a resolution of 5

km2 will result in commission errors (assuming the species is present in that 5x5

area when it is not) and increase their climatic niche if cells have high or low

environmental conditions. This is due to how range maps are draw

https://pubmed.ncbi.nlm.nih.gov/16972877/. For small species using a lower

resolution also lead to commission errors as you shows in the supplementary

figure. During the viva we discussed the idea of using different resolutions for

different range sizes. As you already calculated the climate variables for 5, 10 and

50 km2 resolutions the easiest solution would be to create two range size

categories and use each resolution for each class. We realise this may not be

straightforward (where to put the cut-off points), so alternatively you could see if

results are qualitatively different when changing the resolution. Manuela is happy to

discuss this a bit more if useful.

* Line …

- Non-breeding area issue: removing the climatic conditions of the non-breeding area can likely affect how the climatic niche is described, and species that spend several months during the non-breeding season in an area likely can withstand those conditions. Also currently you are taking annual values for the breeding range, but the species will not be affected by these, they migrate in response to climatic changes. Properly including those species would require obtaining climate data for each area (breeding and non-breeding) within the relevant time window when individuals are there. The required information on seasonality and climatic data may not be available, so alternatively, we discuss removing species with distinct breeding and non-breeding ranges. This will bias your sample, but as currently presented the climatic niches of those species are not correctly characterized.

* Lines … (methods); lines (results); Supporting Figures S4.18, S4.19, S4.20 (add legends).

- Optional for PhD thesis, but strongly advised for manuscript submission: turn open-ended questions into directional, supported hypotheses in the intro, and make sure that these are explicitly linked in the rest of the document.

* Keeping this piece of advice for the manuscript.

Chapter 5:

- Phylogenetic imputation and circularity: using body mass (+taxonomy) to

estimate RMR and then calculating the residuals of RMR ~body mass, creates

circularity, for imputed species the residuals will only represent how that taxonomic

group differs from the predicted, which is not very informative and not how you are interpreting the values. Instead, we recommend results are presented only for

species with empirical RMR estimates.

- You may with to consider using taxonomic slopes when calculating the

residuals RMR~body mass\*taxonomy, this way you would avoid having entire

groups showing as high (or low) residuals because the entire group has a different

relationship between body size and RMR

Discussion:

- Higher integration, context dependency, implications, strengths and

weaknesses, future directions.