Editors Comments for the Author(s):  
This manuscript addresses an important and timely question: Does temperature variability influence phenotypic plasticity in ectotherms? To do so, it uses a systematic approach and meta-analysis that combines data from 44 studies (40 species, 212 effect sizes). The study is a follow-up of a previous publication by the same authors in Ecology Letters, which investigated a similar question in endotherms. The topic is of broad interest and represents a logical and valuable extension of their earlier work. It merits consideration for publication in Ecology Letters, pending thorough peer review. However, before recommending this manuscript for peer review, I suggest the authors address the following points:  
  
1. Provide a completed PRISMA Eco-Evo checklist (O’Dea et al., 2021), in accordance with best practices for systematic reviews and meta-analyses in ecology and evolution.  
  
2. Discuss the implications of the high heterogeneity observed. The meta-analysis reports substantial relative heterogeneity, largely arising from within- and among-study variation; however, as far as I can tell, neither in this manuscript nor in their previously published meta-analysis do the authors critically examine and discuss how those levels of heterogeneity alter their strong and clear conclusion that: “Temperature variability does not influence phenotypic plasticity in ectotherms”. I recommend that the authors not only report I² values but also adopt the pluralistic framework proposed by Yang, Noble, et al. (A pluralistic framework for measuring and stratifying heterogeneity in meta-analyses) to better characterise and account for heterogeneity. This would lend greater nuance and robustness to their interpretation before making such a definitive claim.

**Response**: Thank you for this very important suggestion. We have now added more details to the methods about the different types of heterogeneity estimates. We have also updated our results to include these measures (both in the MS and the supplement with an updated Table S13). We have also greatly expanded our first paragraph of the discussion to both: 1) identify clearly the high heterogeneity, which may not have come across in our past version and 2) explain what the sources of heterogeneity mean for generalisability across species and 3) how the types of measured traits are likely a key sources of this variability with a little example of why.   
  
Sincerely, Alfredo Sánchez-Tójar.