

# Answer to the remarks of Dr Anderson

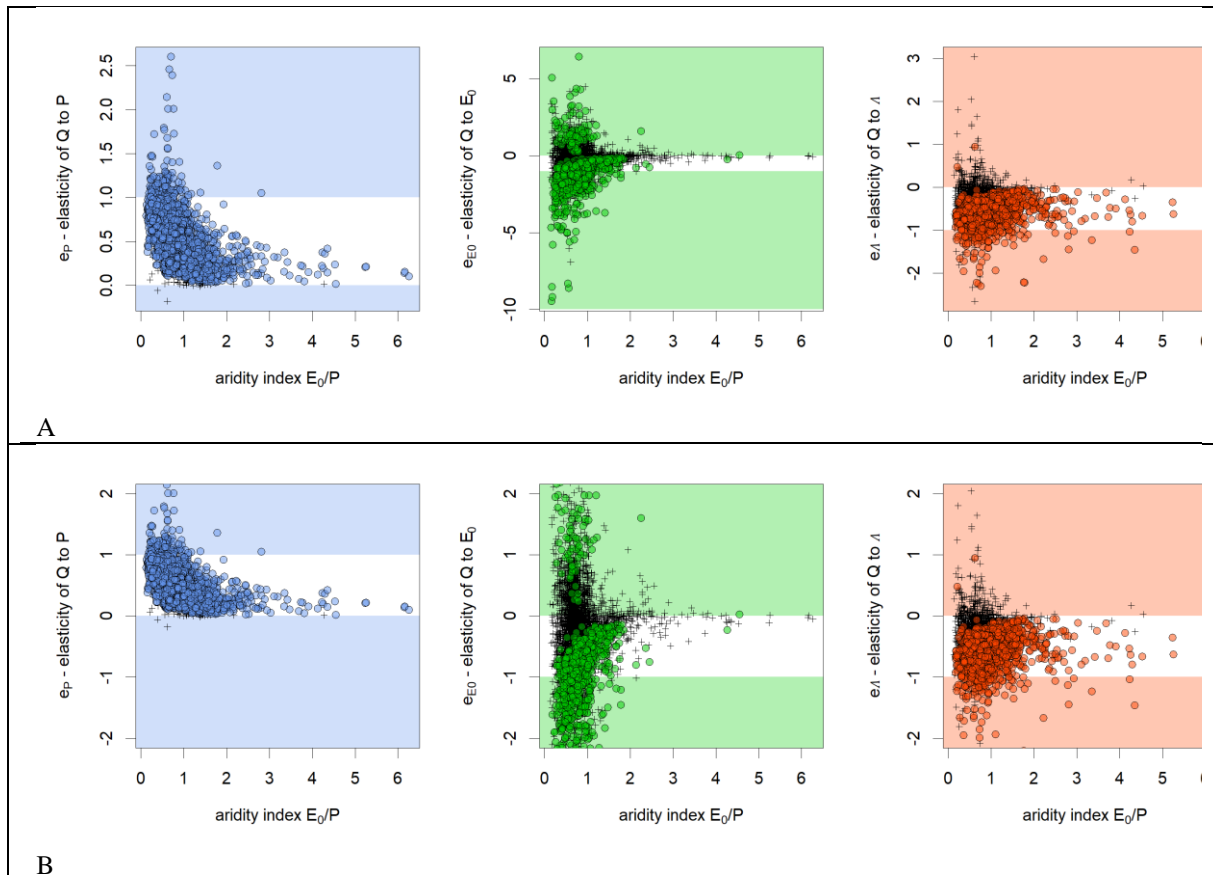
Thank you for re-reviewing our paper. Please find below our answer.

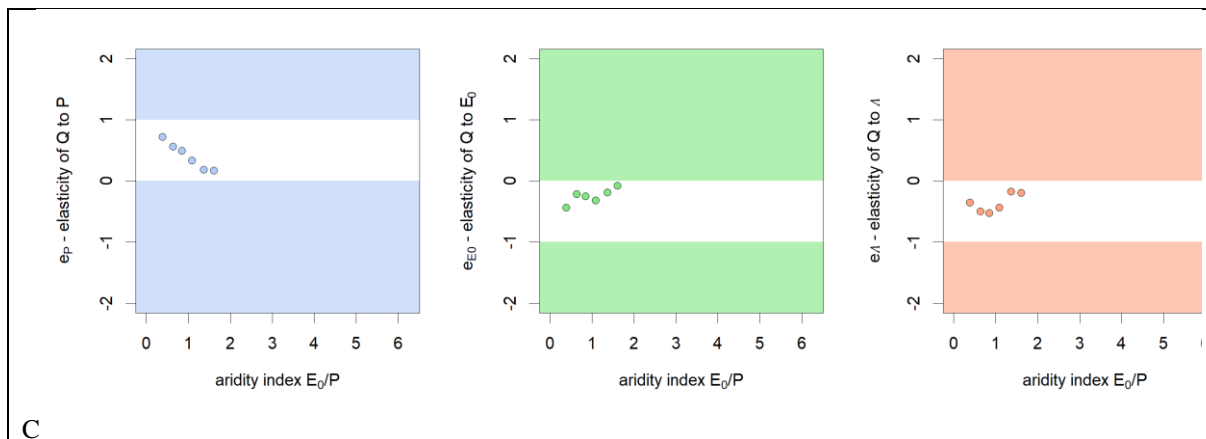
*My one remaining concern relates to the statement that the authors made in one of their responses that, "From a sheer statistical point of view, if the coefficient is not significant, it should not be retained..." This is fundamentally untrue. Significance is not a criterion for whether an estimate exists, strict binary cut-offs in significance are arbitrary, and filtering to significant points can bias the visual impression and is misleading.*

We accept your critic and we recognize that there is indeed information in these points which may be hidden by the artificial threshold of 0.05.

*I also do not think that the visualisation problems noted by the authors are as severe as they suggest. In the alternative plot provided in their response, they plot the non-significant points in black on top of the significant ones, obscuring them, and although they state that including these points would change the axis limits, it does not in the example. The authors could instead plot the non-significant points underneath the significant ones, or use high transparency as I suggested in my original comment. At a bare minimum the complete plot should be in the SI.*

We followed your advice (plotted the non-significant points underneath the significant ones and used transparency). We plotted all points on graph 3.a, zoomed on a common domain in Fig 3.b.





**Figure 3. Relationship between the aridity index and locally-estimated climatic elasticities of streamflow, for precipitation elasticity (left), potential evaporation elasticity (middle), synchronicity elasticity (right). The white domain indicates the physically-plausible range (i.e. [0,1] for precipitation elasticity and [-1,0] for potential evaporation and synchronicity elasticities. a – (upper panel) locally calibrated elasticity coefficients, showing all catchments (elasticities coefficients non-significant at the 0.05 level are figured as crosses), b – (middle panel) same as a with a zoom on the [-2,2] range; c – (lower panel) class calibrated elasticity coefficients (from Erreur ! Source du renvoi introuvable.)**