



Analysis with the raw data uploaded by Yin et al.

—●— 1. Yin et al. random= $\sim 1|\text{species/study}$

Analysis with the proofed data uploaded by Sánchez-Tójar et al.

—■— 2. Sánchez-Tójar et al. non-conservative approach: random=list($\sim 1|\text{obsID}$, $\sim 1|\text{study}$, $\sim 1|\text{species}$)

—◆— 3. Sánchez-Tójar et al. accounting for shared control

—▲— 4. Sánchez-Tójar et al. accounting for phylogenetic non-independence (Brownian motion model)

—▼— 5. accounting for phylogenetic non-independence (Pagel's λ , $\lambda=0.5$)

—×— 6. accounting for phylogenetic non-independence (Blomberg's g , $g=0.2$)