Supplementary Information Two: Integrating data from different taxonomic resolutions to better estimate community alpha diversity.

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Supplementary figures from the Case Study: Application to PoMS data

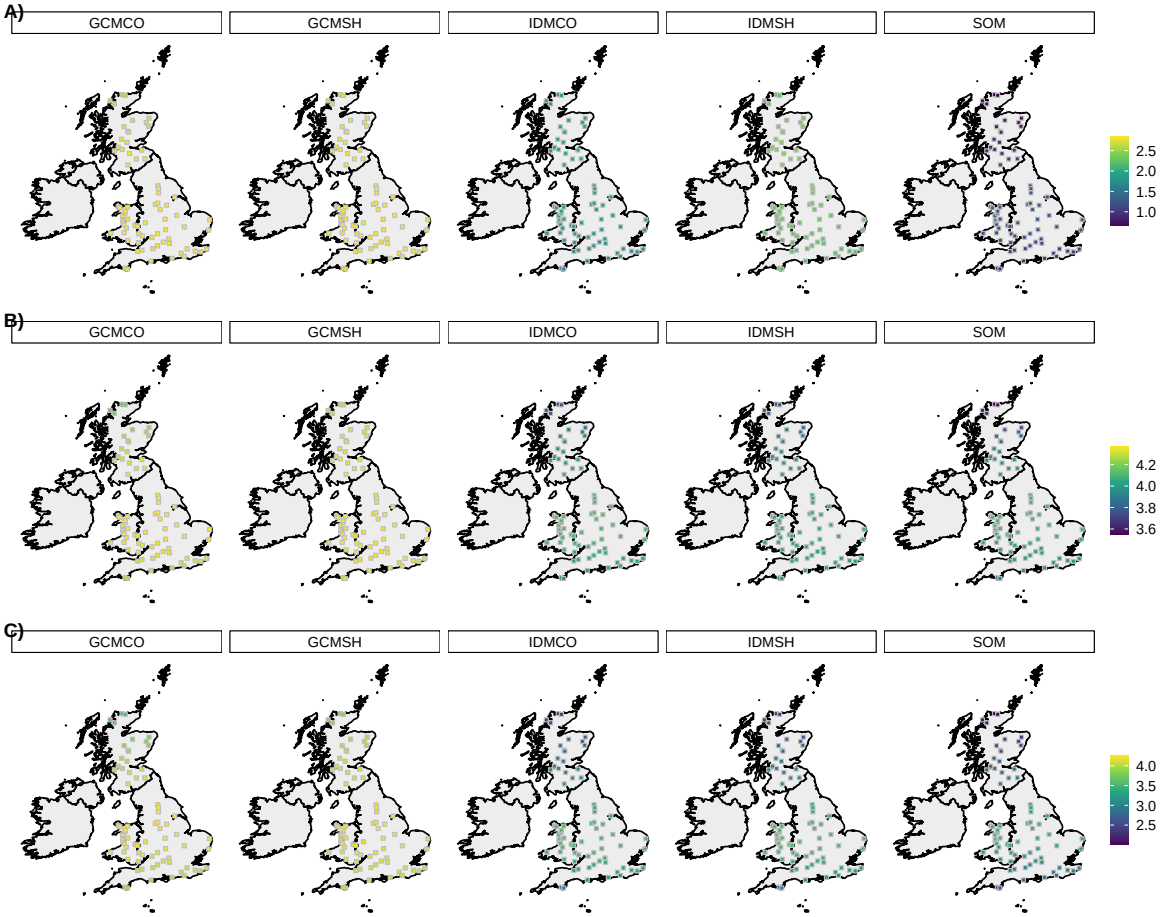

Figure S2-1: Posterior mean of the Shannon diversity (H') estimates for each of the 74 PoMS sites from the five models in this study summarised in Table 2 for each of the insect groups: A) bumblebees, B) hoverflies and C) solitary bees.

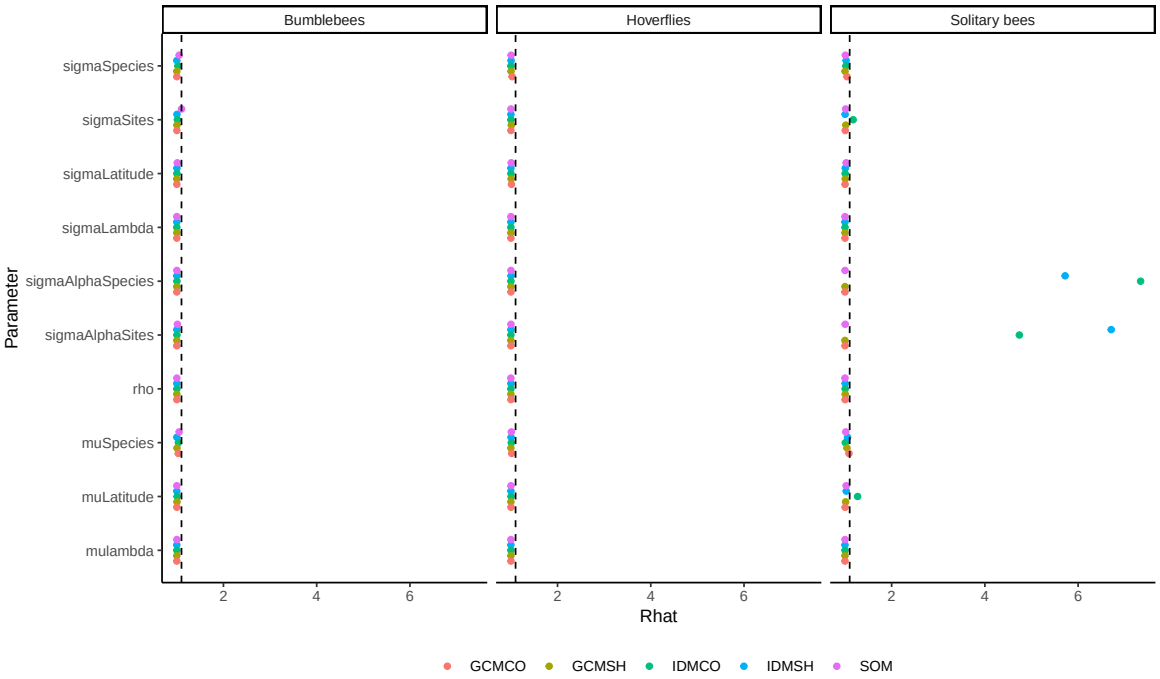

Figure S2-2: Rhat estimates for the Markov chain Monte Carlo samples for each of models used in this study. A model was considered to have converged if the r-hat estimates were less than or equal to 1.1 (corresponding to the left side of the dashed line.)

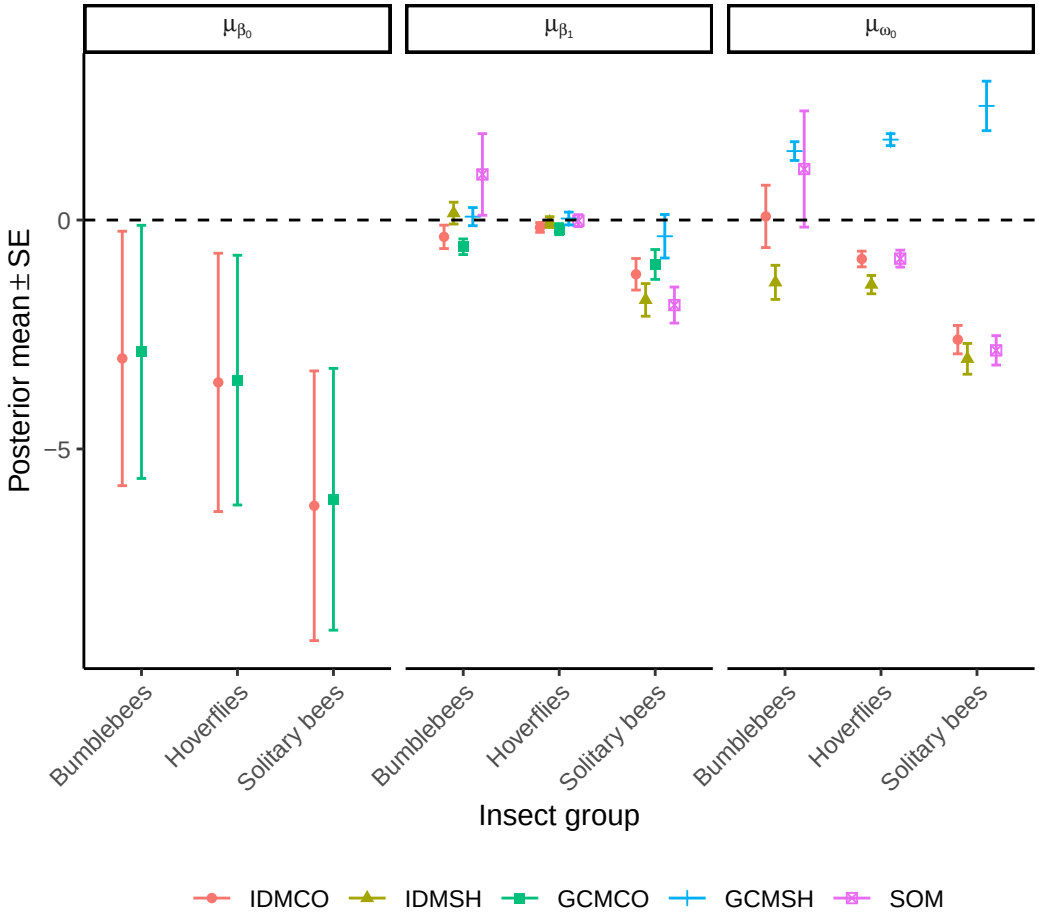

Figure S2-3: Community mean estimated from the five models in this study for intercept and latitude effect from the PoMS case study.

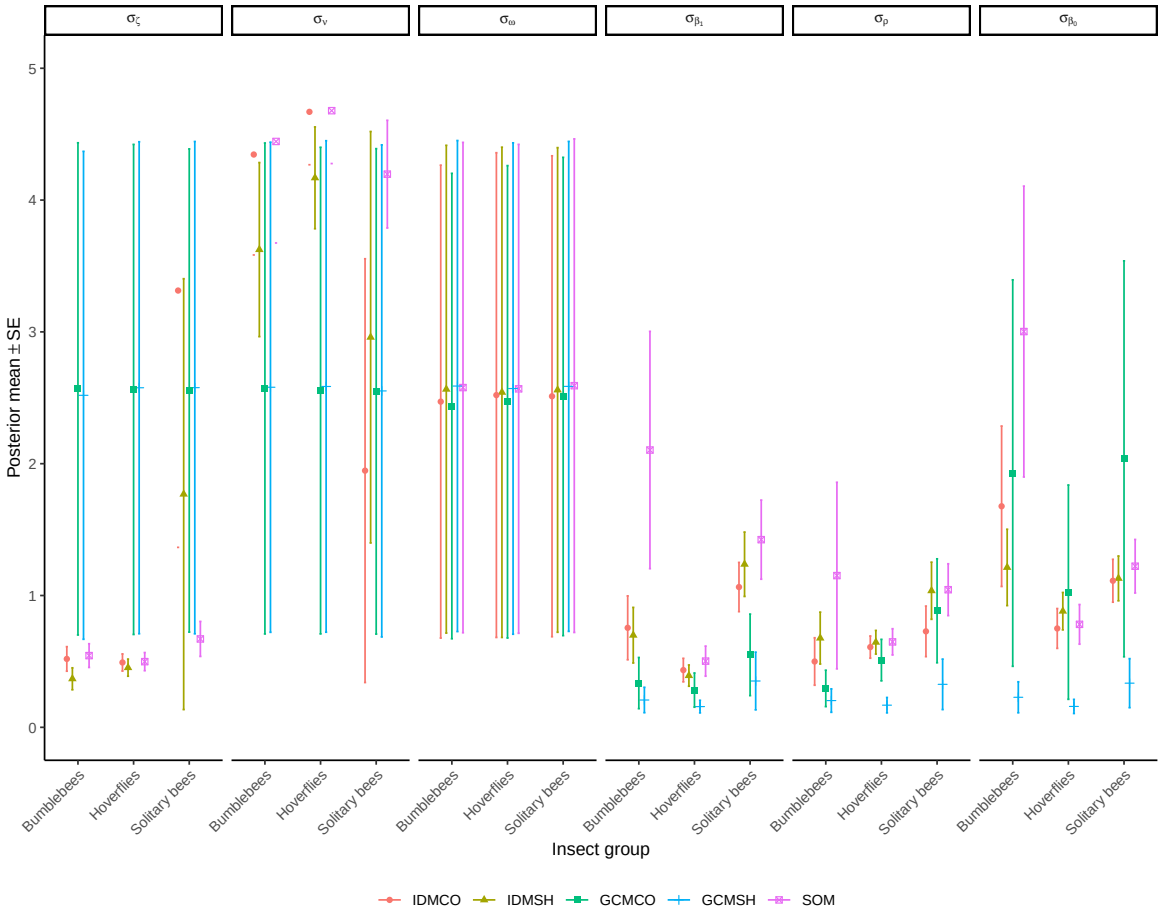

Figure S2-4: Community variance estimated from the five models in this study for the detection probability, and the observation process and latitudinal effect from the PoMS case study.

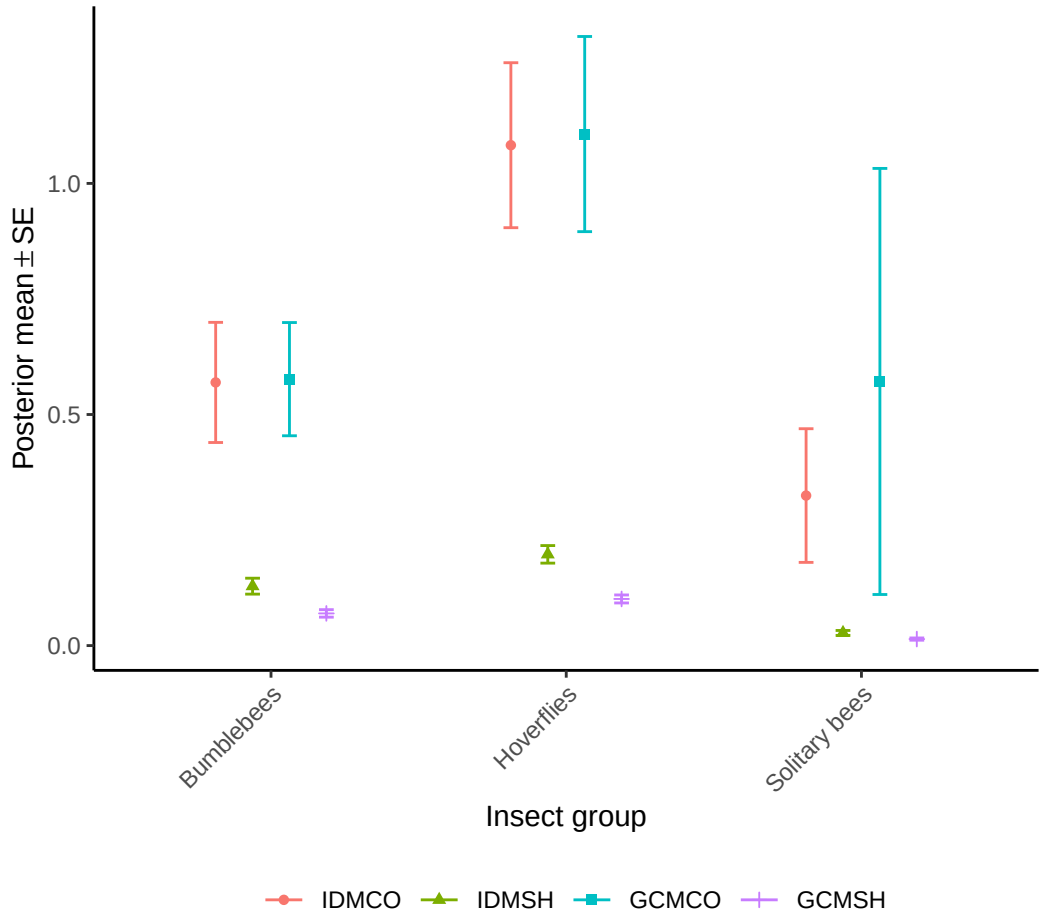

Figure S2-5: Overdispersion parameter estimated from the models that included the FIT count data.