

Additional file 1 – Supplementary information

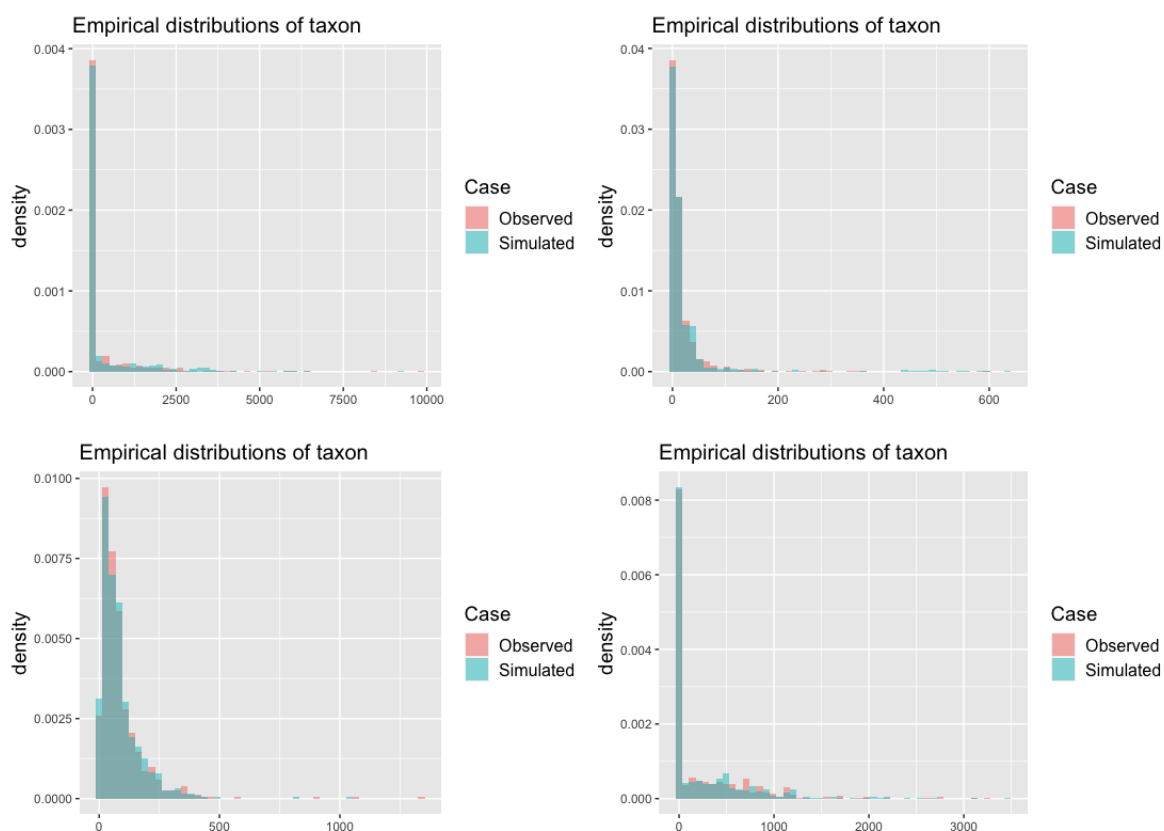


Figure S1: Histograms of some simulated abundances vs. true abundances.

For Setting 2, the two-part quantile model preserves the zero-inflation characteristics of the taxa, and also captures every quantile of the positive abundances, preserving the over-dispersion and even other characteristics of the irregular distributions. Any kind of modeling can only approximate the truth as much as it can, while the quantile modeling can preserve more details than parametric choices such as models based on the Dirichlet-multinomial distribution. We compare some simulated abundances with the observed abundances from the data by using histograms (Additional file 1: Figure S1). We see that the simulated abundances based on the quantile model is similar to the true abundances.