

Figure S5: Specificity of plant genera to islands within our experiment. Empirical specificity values are shown as horizontal black lines, and null distributions are shown as gray violins. This analysis indicates that in our experimental design, hosts are indeed specific to islands. However, we expected that if host-island specificity bias within our experimental design was driving the zOTU-island specificity pattern we observed, the two would strongly correlate. There was no significant relationship between host-island specificity and zOTU-island specificity, and host-island  $d'$  values (shown here) were much lower than those observed for zOTUs (Figure 4). So while part of the zOTU specificity we observed may be due to bias in our sampling design, there is likely a significant pattern of zOTU island specificity as well.

