

## Current version of figures

Note: pdf links are only (shift) clickable in the .Rmd file (not in the html).

Figure 1

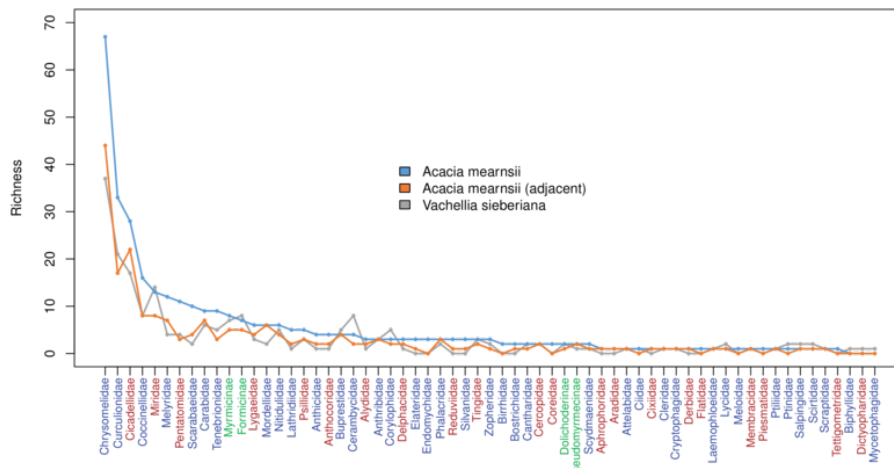


Figure 1: ./graphs/BW\_VS\_Adj Morphospecies by family host.png

OR

Figure 1. Morphospecies diversity by family by host tree category (plus all categories pooled). *Acacia mearnsii* includes all black wattle trees and *Acacia mearnsii* (adjacent) includes only the sites where *Vachellia sieberiana* co-occurs. Families are ordered on the X-axis by morphospecies richness in *A. mearnsii*. Sampling effort differs among the groups (*A. mearnsii* = 265 trees, *A. mearnsii* adjacent = 57 trees and *V. sieberiana* = 46 trees). Blue labels on the x-axis correspond to Order Coleoptera, red to Homoptera, and green to subfamilies within the ants (Hymenoptera: Formicidae).

**Pdf link (highlight and Alt-E)**

C:/Users/jrg1035/Box Sync/Students\_postdocsFABI/Sarai/MearnsiiCh3/Acacia data/graphs/BW\_VS\_Adj Morphospecies by family host.pdf

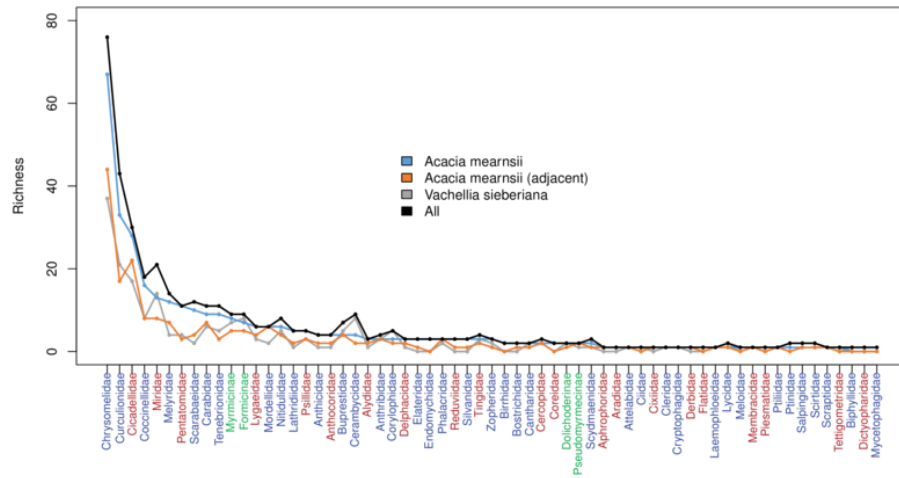


Figure 2: all

Figure 2

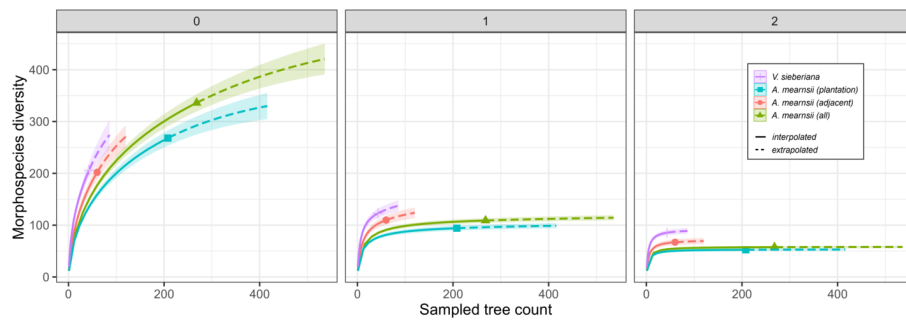


Figure 3: ./graphs/BW\_VS Rarefaction By Host\_all four.png

Figure 2. Sample-based rarefactions and extrapolations of insects collected from *Vachellia sieberiana* and *Acacia mearnsii*.  $q = 0$  corresponds to species richness,  $q = 1$  to the exponential of Shannon diversity and  $q = 2$  to Inverse Simpson diversity (Chao et al., 2015). 95% confidence intervals were calculated by a bootstrap method based on 10,000 iterations. Solid and dashed portions of curves correspond to interpolated and extrapolated richness respectively.

**Pdf link (highlight and Alt-E)**

C:/Users/jrg1035/Box Sync/Students\_postdocsFABI/Sarai/MearnsiiCh3/Acacia

data/graphs/BW\_VS Rarefaction By Host\_all four.pdf  
 (./graphs/BW\_VS Rarefaction By Host\_all four.pdf)

Figure 3

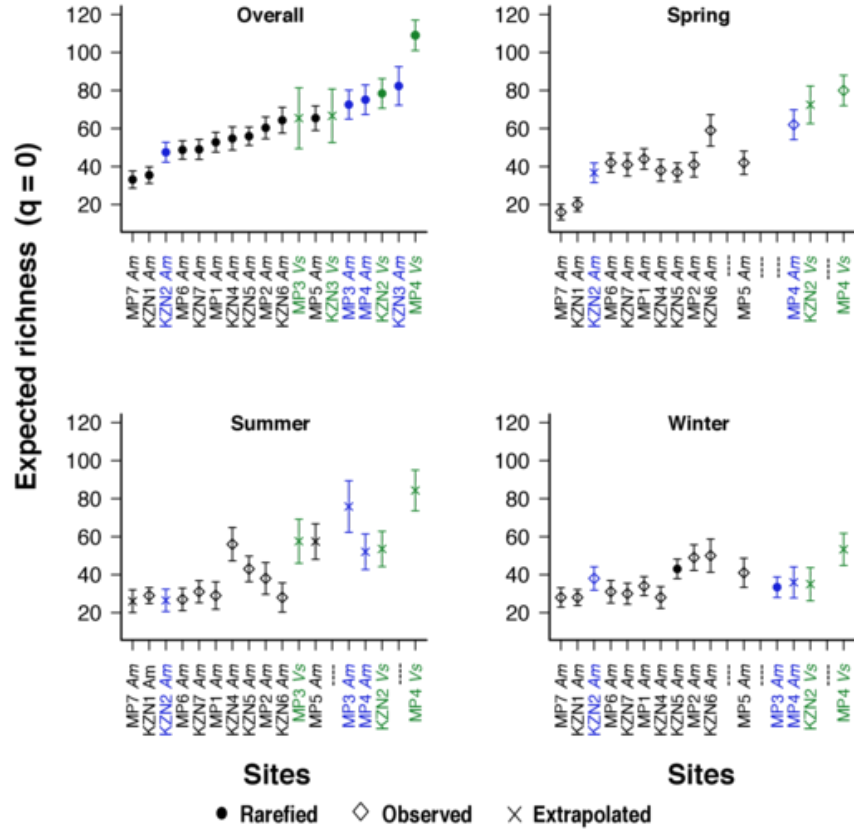


Figure 4: Fig 3 BW\_VS Site Host Season Expected RichnessED  $q=0$ .png

Figure 3. Expected insect richness ( $q = 0$ ) by sampling site and tree host. “Overall” includes all samples pooled across seasons, rarefied or extrapolated to 10 trees. “Spring”, “Summer” and “Winter” were rarefied or extrapolated to 7 trees. Error bars are 95% confidence intervals. Blue labels indicate *A. mearnsii* adjacent sites while green ones indicate co-occurring *V. sieberiana* sites. Not all sites were sampled every season.

Figure 4

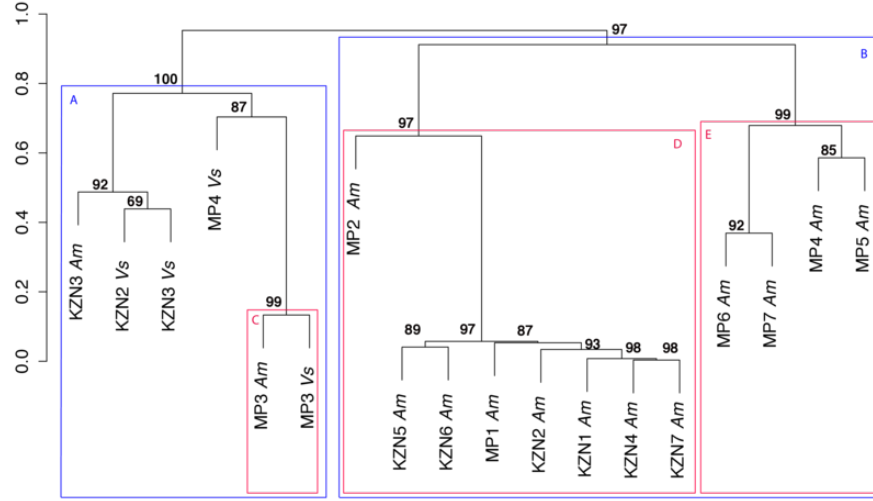


Figure 5: cluster analysis

Figure 4. Hierarchical clustering of sampling sites using Pearson's correlations as a measure of dissimilarity and average distance as the agglomerative method of clusters. Package pvclust in R was used for calculations. Values at branches are Approximately Unbiased (AU) p-values, calculated by multiscale bootstrap resampling based on 10 000 replications. Larger AU p-values indicate stronger support for the cluster. AU p-values range between 0 and 1 (here expressed as percentages). Clusters with AU p-values > 95 are highlighted and labeled A-E. Significant clusters nested more than two clusters deep were not considered. Am = *A. mearnsii*, Vs = *V. sieberiana*.

Figure 5

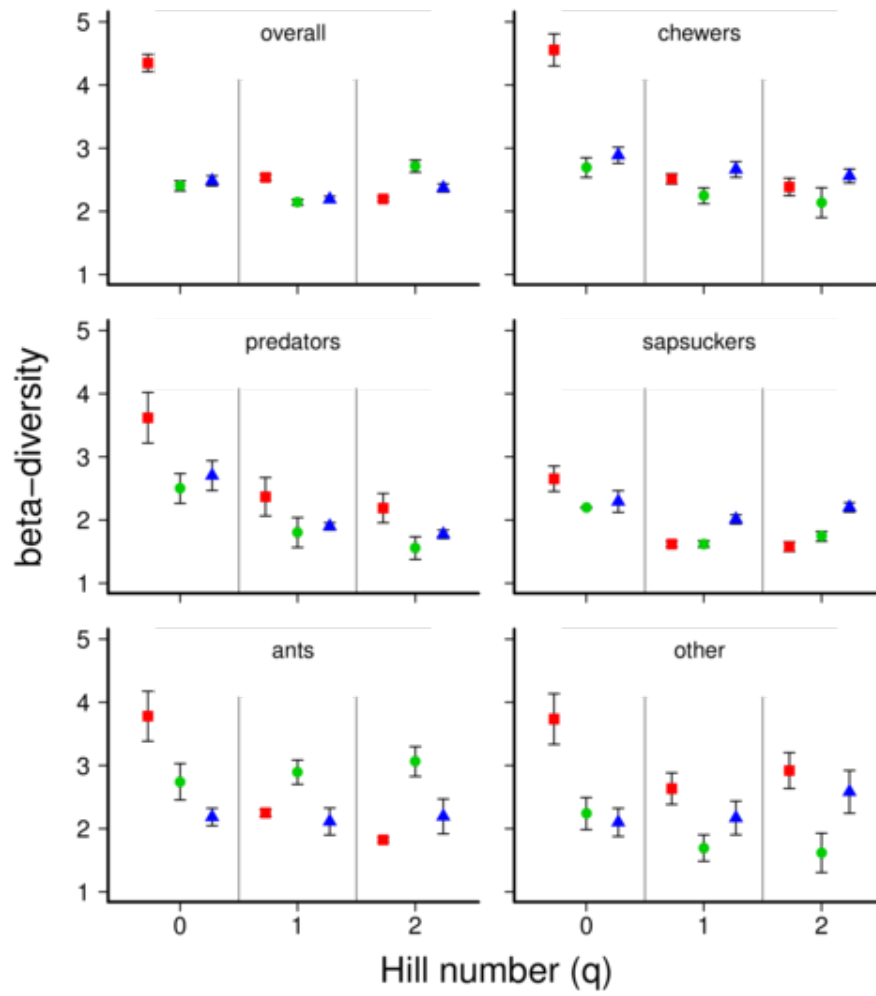


Figure 5. Beta-diversity overall and separated by guilds. Bars indicate 95% confidence interval.

**Figure 6**

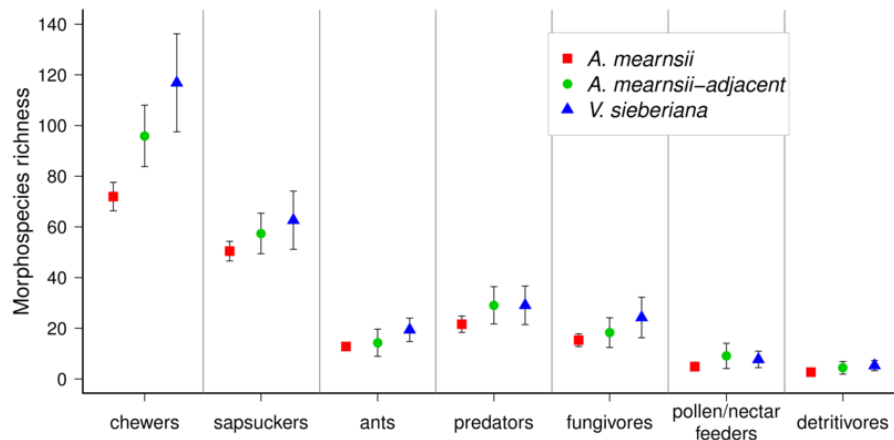


Fig. 6. Rarefied richness by host. Bars indicate 95% confidence intervals. Classified based on Scholtz and Holm, 2012).

**Figure 7**

Figure 7. Venn diagrams illustrating the number of unique and shared insect morphospecies between *V. sieberiana* (Vs, green), *A. mearnsii* (Am, blue) and *A. mearnsii* adjacent to *V. sieberiana* (Am-adj, red). Singletons and doubletons were excluded. Black lines enclose the total *A. mearnsii* (plantation only and adjacent) and *V. sieberiana* overlap and dotted lines indicate the total overlap among the three groups.

## Note on final figures

---

These files were copied FROM C:/Users/jrg1035/Box  
 Sync/Manuscripts/SaraiOlivier/Chapter 3 figs and tables/ TO  
 C:/Users/jrg1035/Box  
 Sync/Students\_postdocsFABI/Sarai/MearnsiiCh3/Acacia data/graphs/

---

Chapter 3 Fig S1 - BW\_VS Rarefaction Region SeasonED.pdf  
 Chapter 3 Fig S2 - Venn Sites SeasonED.pdf

---

These files were copied FROM C:/Users/jrg1035/Box  
Sync/Manuscripts/SaraiOlivier/Chapter 3 figs and tables/ TO  
C:/Users/jrg1035/Box  
Sync/Students\_postdocsFABI/Sarai/MearnsiiCh3/Acacia data/graphs/

---

Fig 1 BW\_VS\_Adj Morphospecies by family hostED2.pdf  
Fig 2 BW\_VS Rarefaction By HostED.pdf  
Fig 3 BW\_VS Site Host Season Expected RichnessED q=0.pdf  
Fig 4 cluster analysis bw\_vsmodified2.pdf  
Fig 5 VennnoSDed4.pdf  
Fig s1 morphospecies richness by guild.pdf  
Fig s2 beta diversity by guild.pdf  
rarefiedrichnessbyguild.pdf}

---

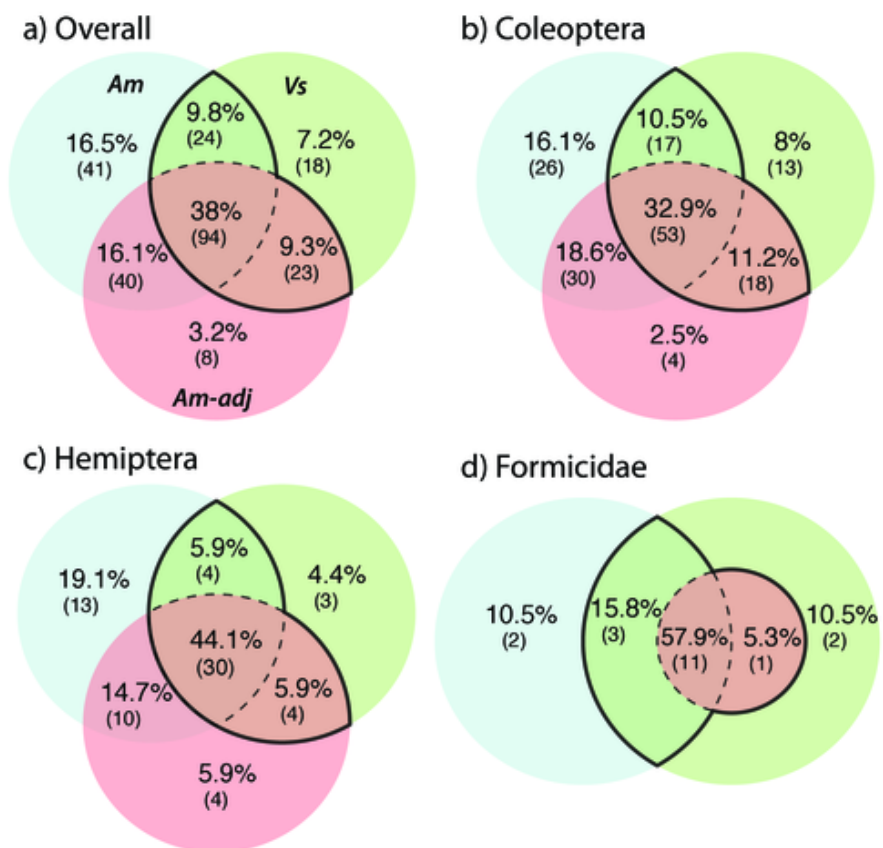


Figure 6: Figure 7 Venn