Advanced Ecology Discussion Questions

Carmona (2016)

Functional diversity should use probabilistic functions, rather than averages, to allow for multiscale comparisons.

- 1. How is functional diversity different than diversity or population variation?
- 2. How do you feel about a glossary being included in a paper?
- 3. Figure 1 step 3: how would you interpret one of the TPD_C or TPD_R graphs?
- 4. Is functional redundancy the same as Shmida and Wilson's ecological equivalence?
- 5. Pg 386: "While the three primary components of FD within communities were originally described in terms of probability density functions, existing methods for calculating them rely on a single average value per species." Is this true?
- 6. "Partial redundancy between species... could allow communities to lose some species without losing ecological functions" Why even bother studying diversity if functional diversity is all that matters?
- 7. What would Jost think of this paper? / Could Jost's idea of diversity include TPD?

Tucker (2017)

Phylogenetic diversity matrices can be broken down into richness, divergence, and regularity.

- 1. Pg 706: "the multidimensional space occupied by metrics measured on landscapes constructed with 64 and 256 taxa trees overlapped, while the metrics calculated for the trees with 16 taxa tended to occupy separate areas of the ordination." Does this make sense considering Carmona (2016)?
- 2. Top of pg 708: discusses the underlying relationships of indices with species richness. Did Jost's argument not stick?
- 3. Has any figure been helpful or stood out to you?
- 4. Pgs 709-710 they discuss applying divergence matrices and that environmental filtering and/or competitive exclusion drive community assembly. So it seems Mayfield and Levine were right?