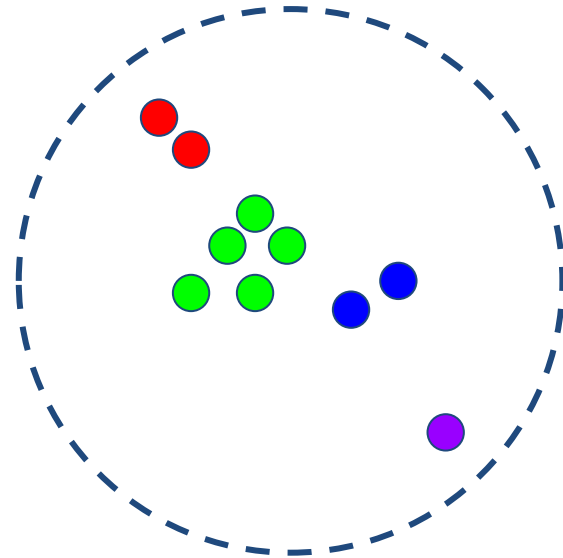
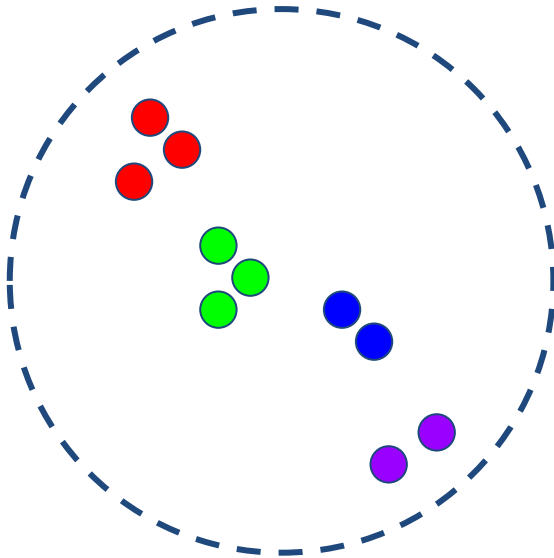


Introduction to ecological diversity measurements and ordination

Daniel Lundin



What is diversity?

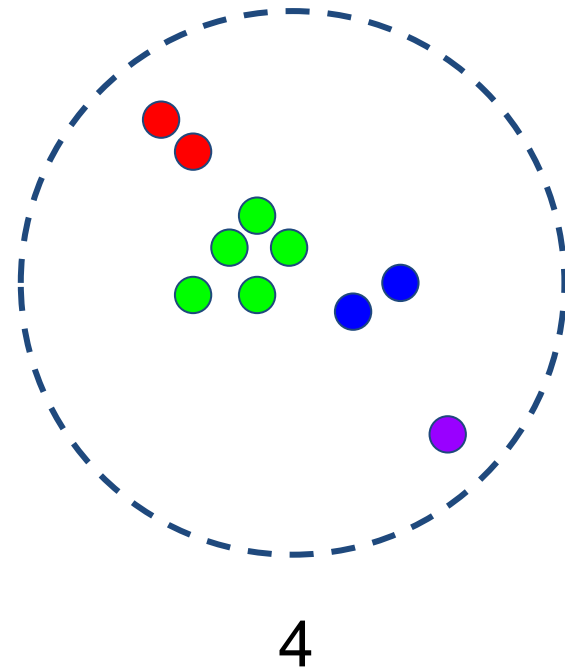
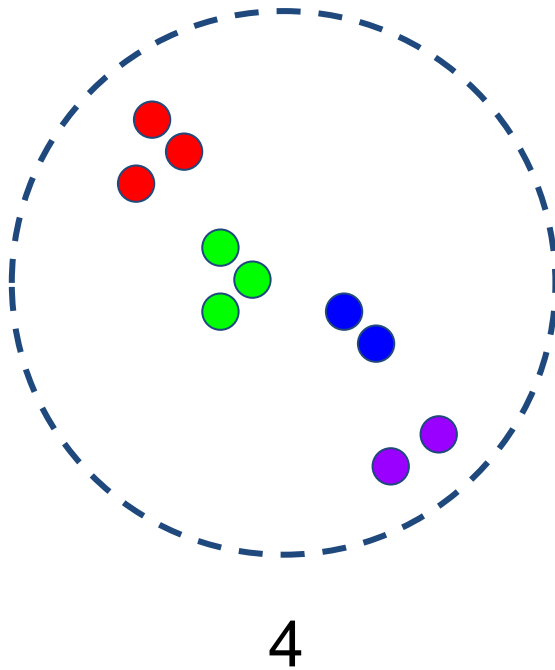


Alpha diversity

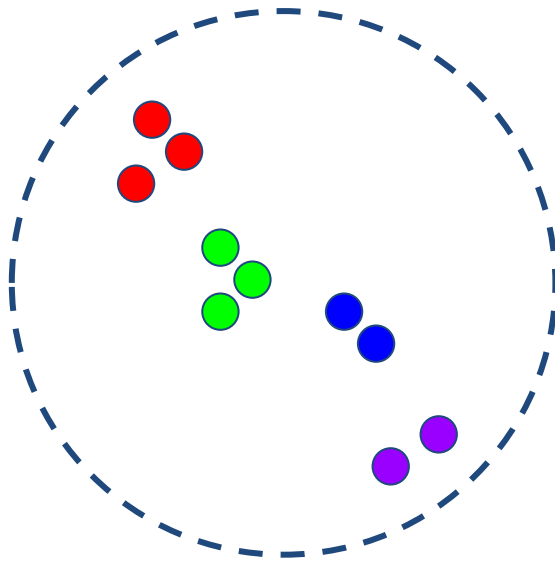
- Species count – “richness”
- Abundance distribution – “evenness”
- Joint measurements – “entropy”



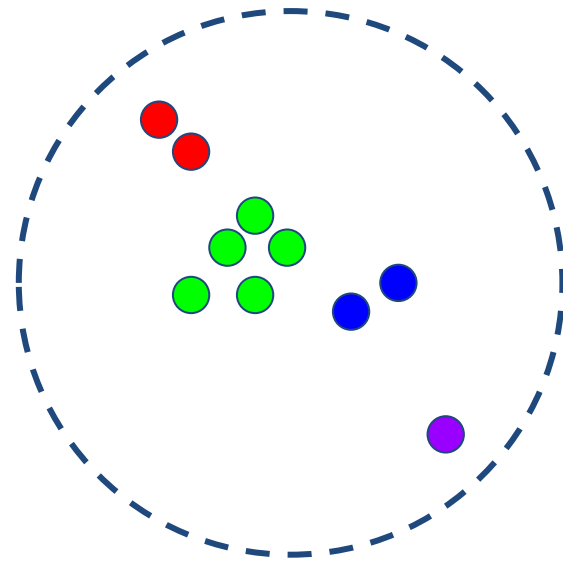
Richness: species count



Pielous's evenness



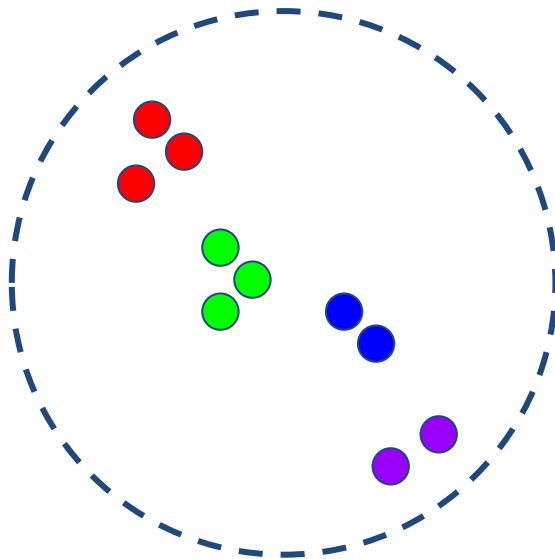
0.98



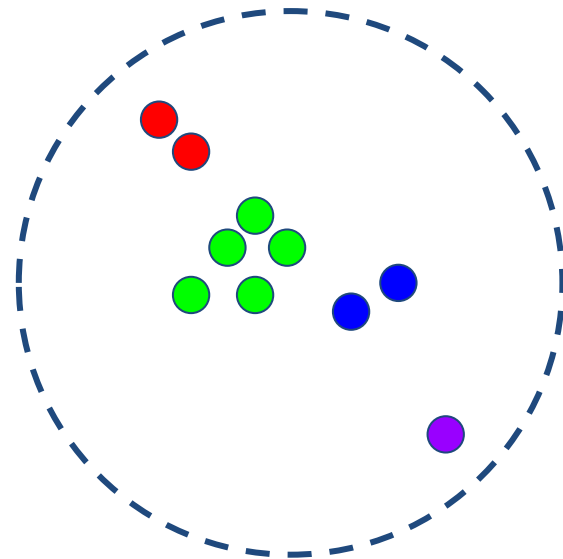
0.88



Shannon



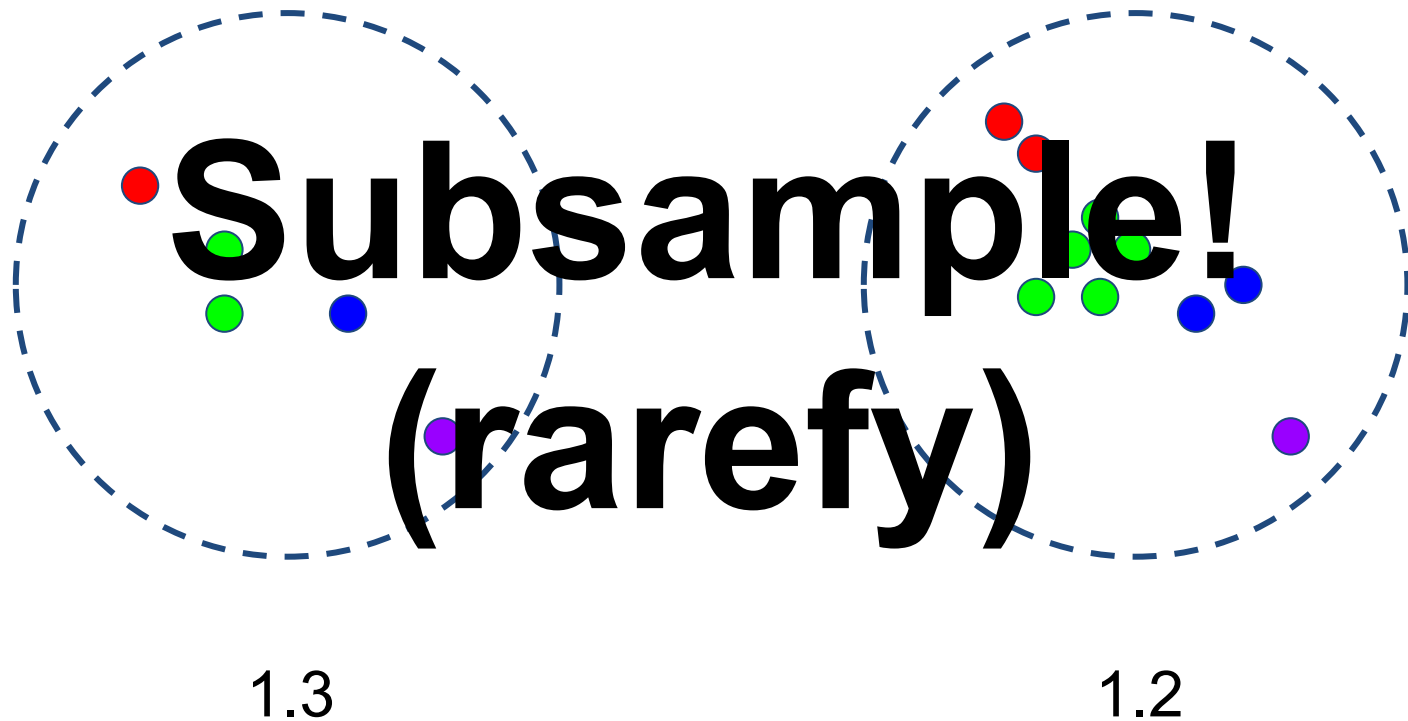
1.4



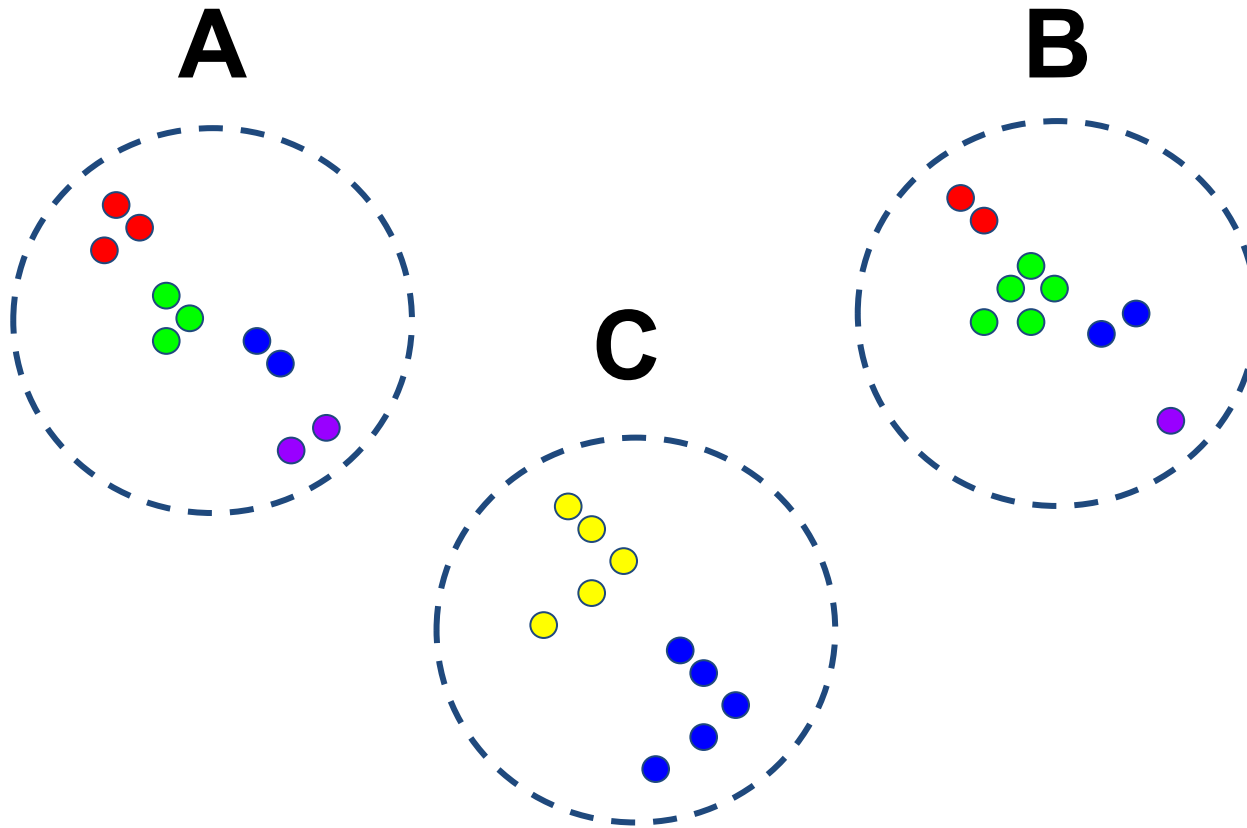
1.2



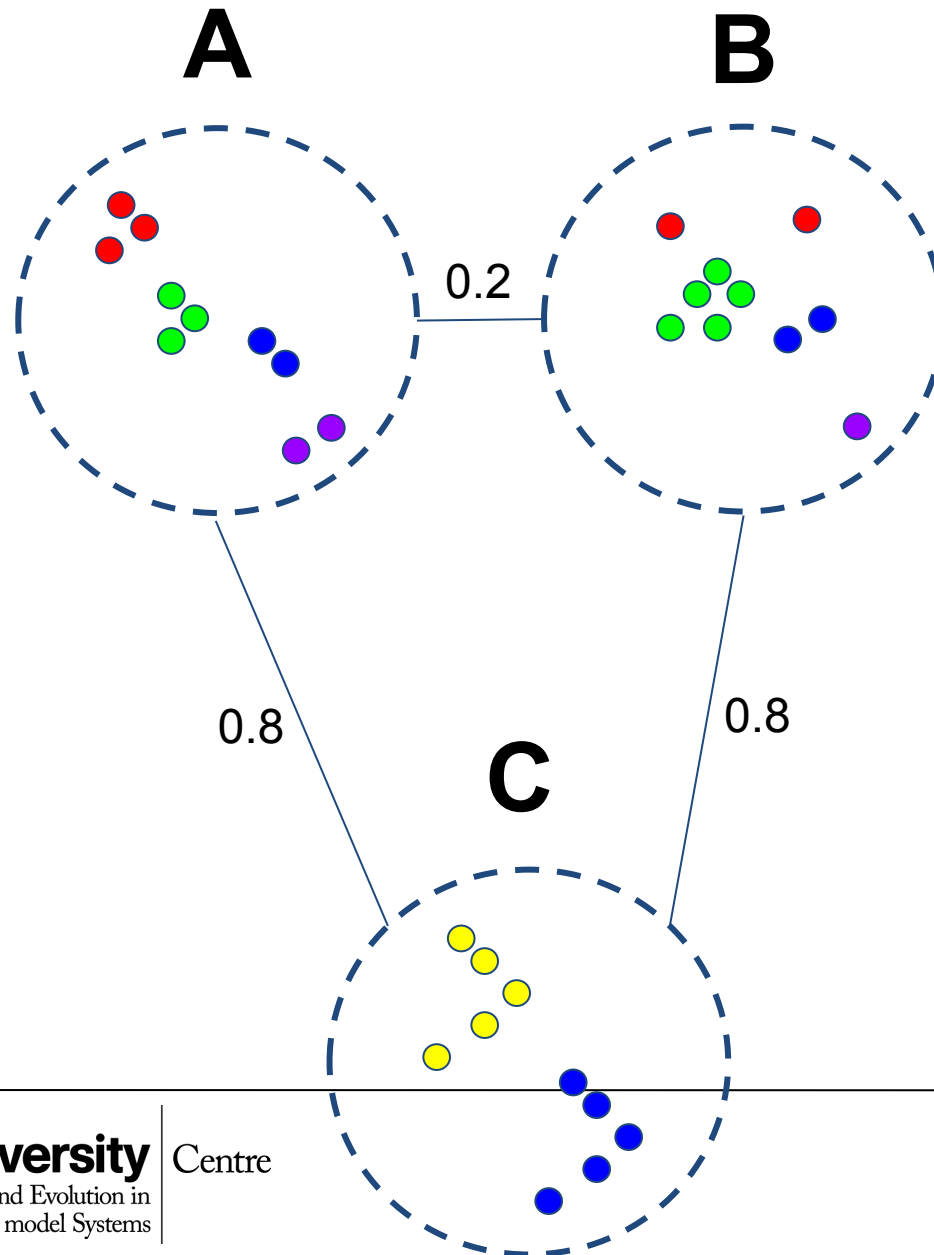
What happens if the total is different?



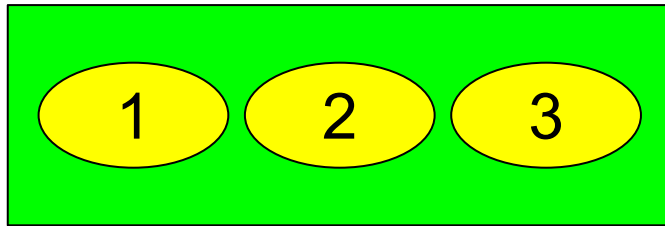
Beta diversity – how similar are A, B and C?



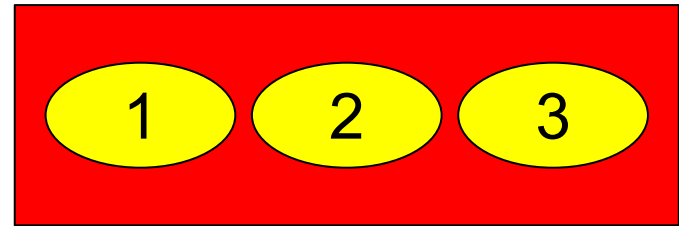
Bray-Curtis



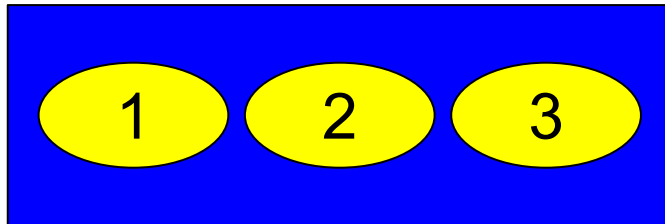
Ordination



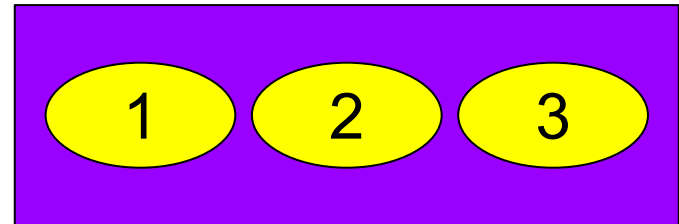
Control



Treatment 1

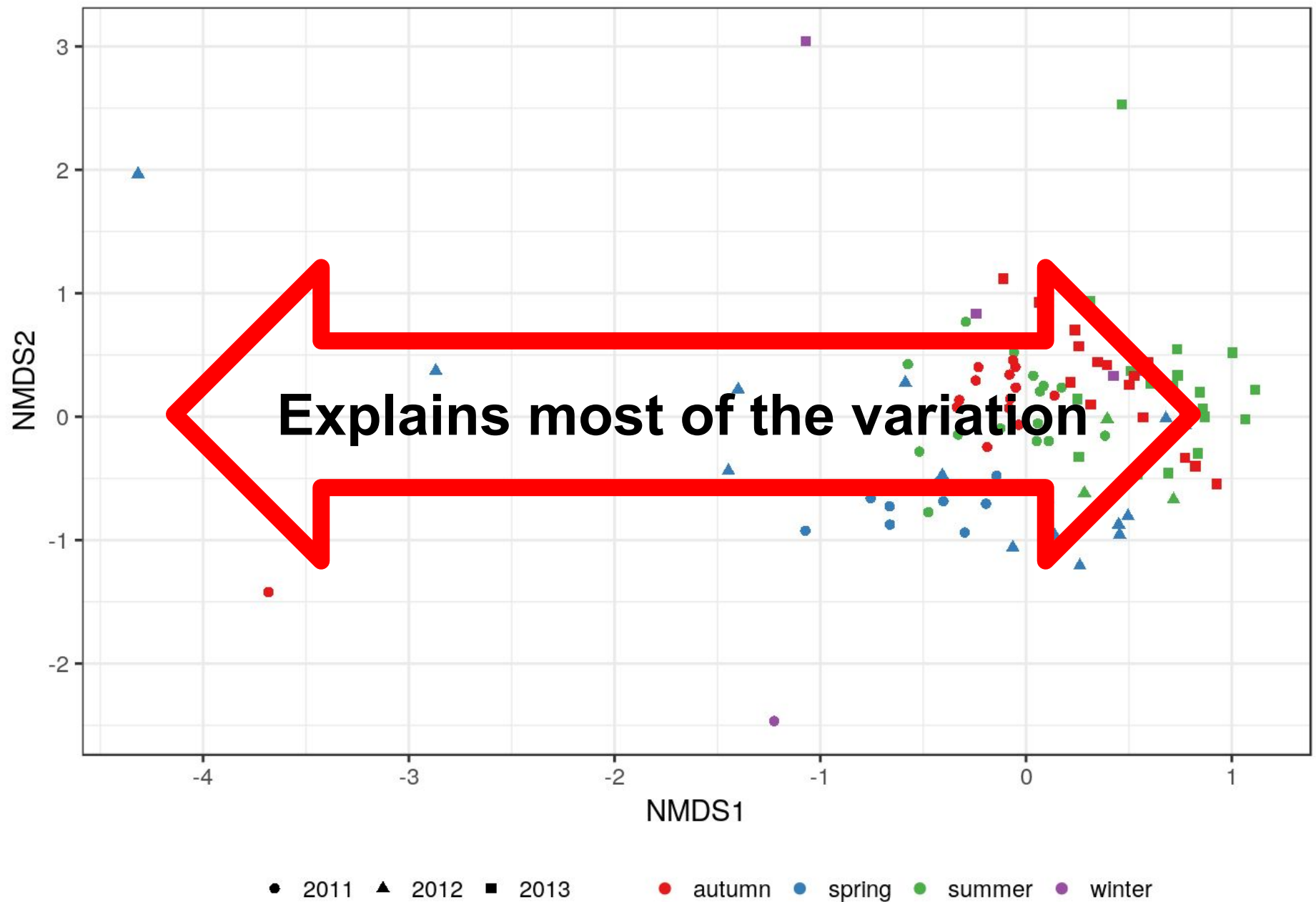


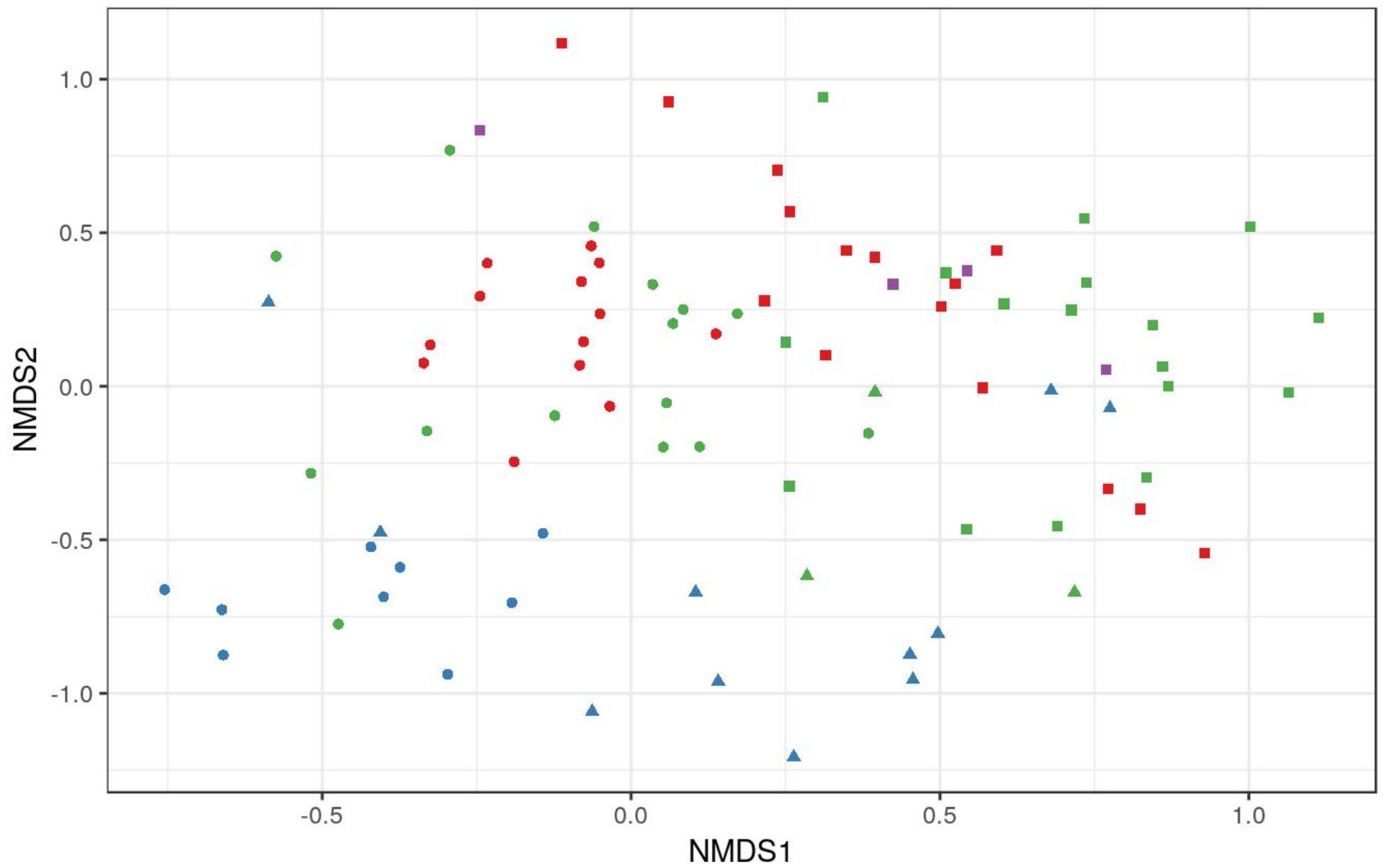
Treatment 2



Treatment 1+2

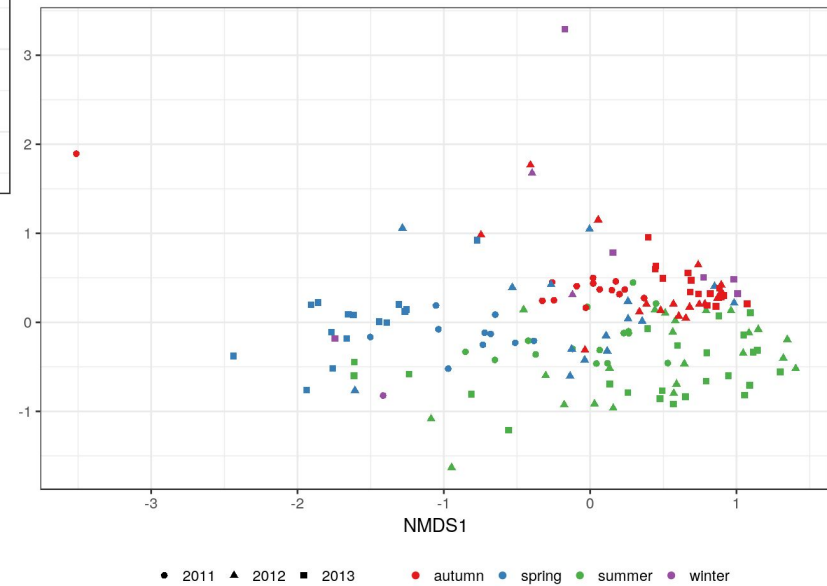
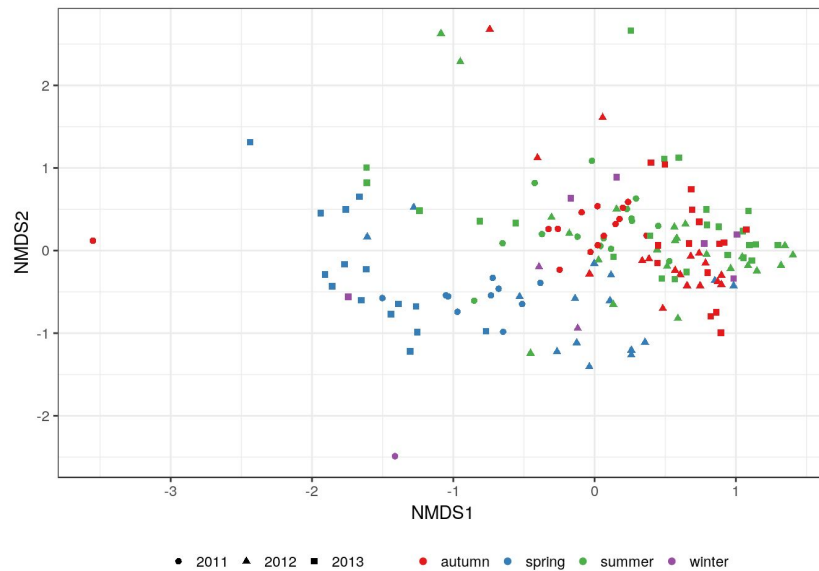






● 2011 ▲ 2012 ■ 2013 ● autumn ● spring ● summer ● winter

NMDS can have more dimensions



<https://jonlefccheck.net/2012/10/24/nmds-tutorial-in-r/>

