

M9_Lab5

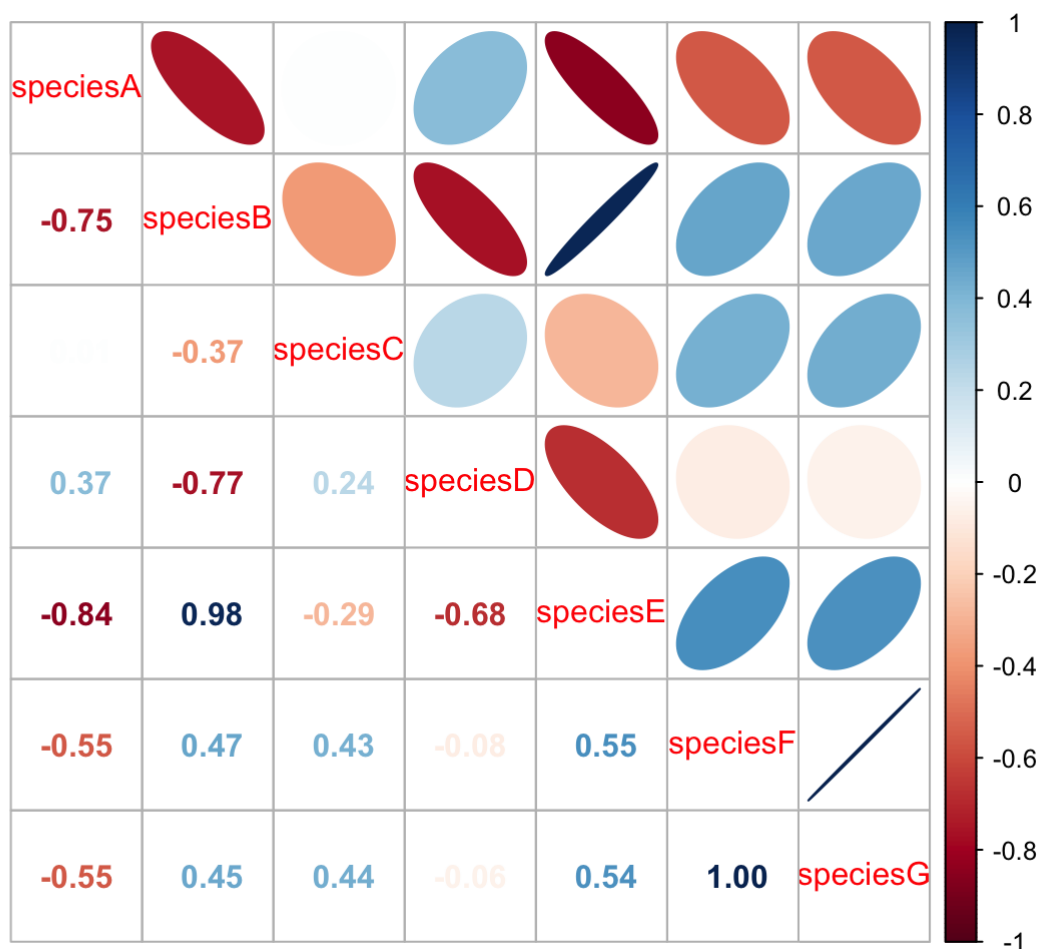
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Part 1: The Data

The data used consisted the counts of 7 different species over 6 different sites.

Part 2: The Correlation Plot

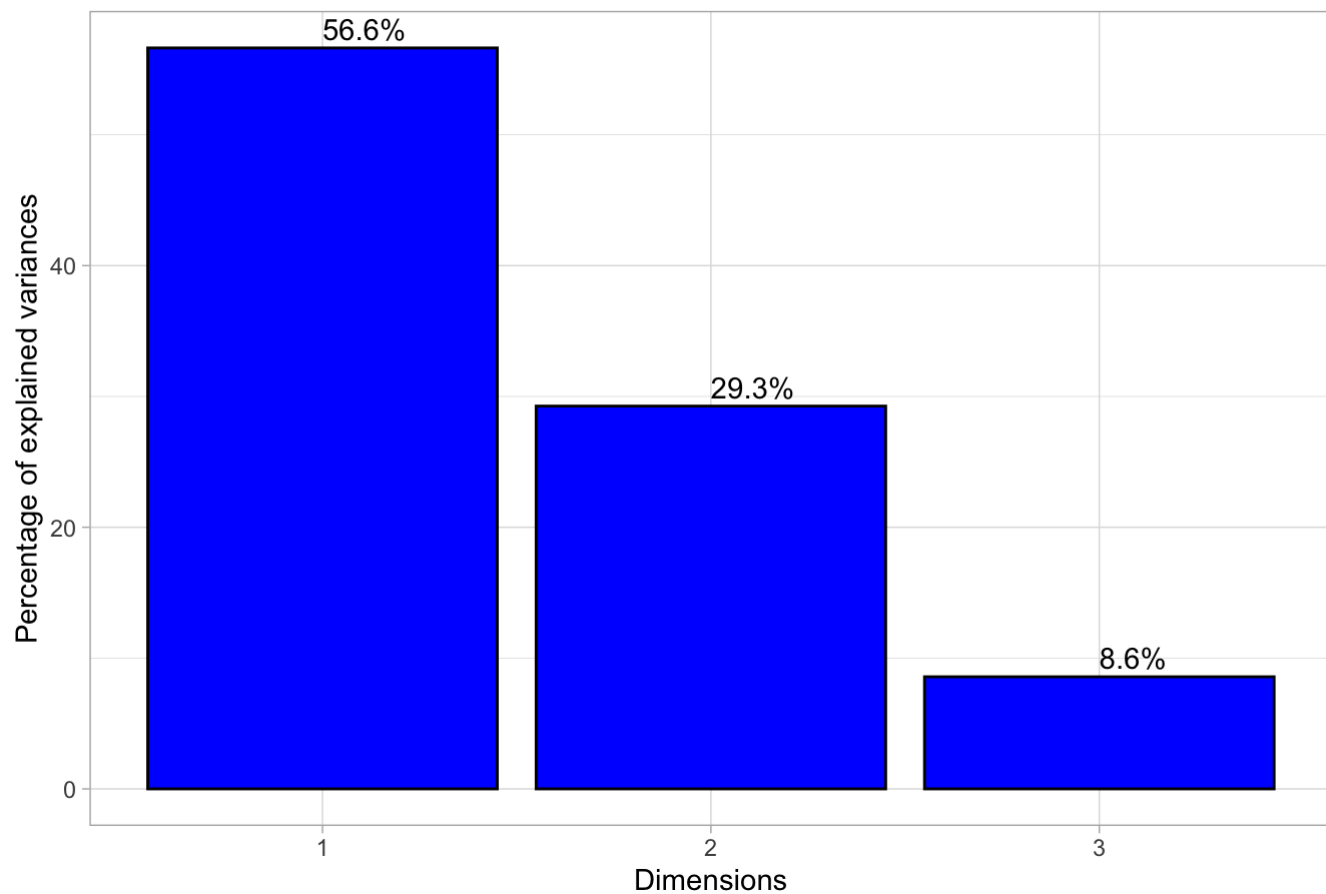


From the correlation plot above, we can see that some of the variables are strongly correlated. For example, the correlation between Species F and Species G is 1. Species B and E are also strongly correlated. However, there are several pairs that are weakly correlated Species A and Species C, Species D and Species F, and Species D and Species F.

Part 3: PCA Analysis

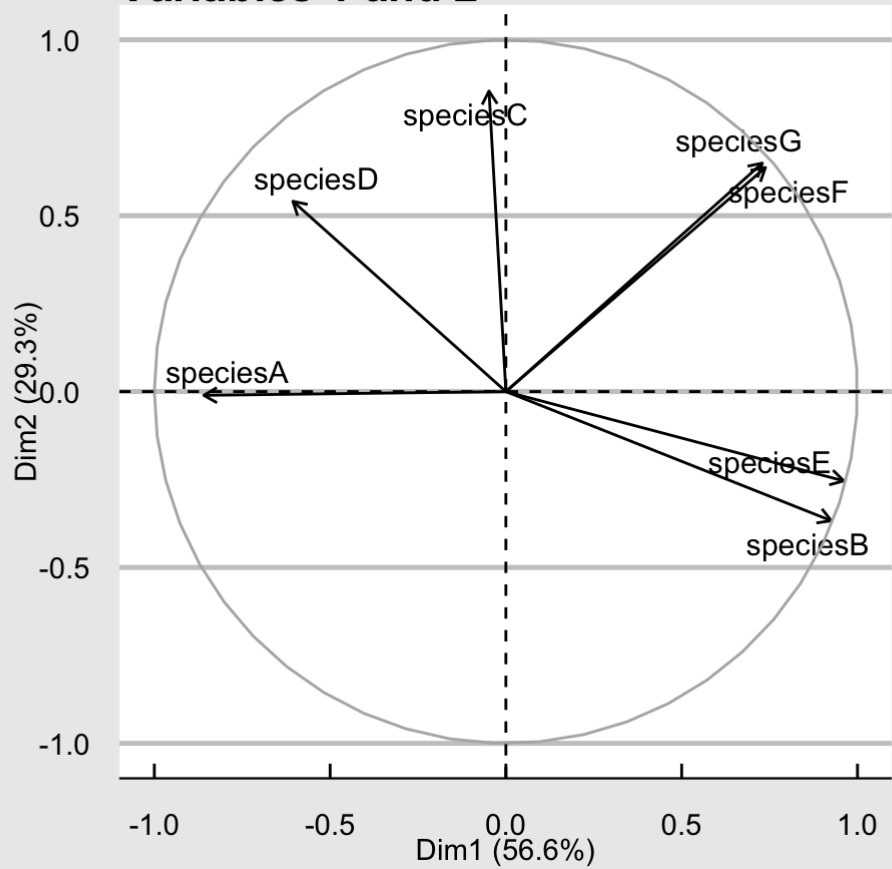
##	eigenvalue	variance.percent	cumulative.variance.percent
## Dim.1	3.964859352	56.6408479	56.64085
## Dim.2	2.048397556	29.2628222	85.90367
## Dim.3	0.599987080	8.5712440	94.47491
## Dim.4	0.377301937	5.3900277	99.86494
## Dim.5	0.009454076	0.1350582	100.00000

From above, it is evident that by using Dim 1, Dim 2, and Dim 3, almost 95% of the variance of the data is accounted for. This is also shown in the graph below.



The pairwise graphs for the dimensions selected are found below.

Variables 1 and 2



Variables 1 and 3

