Analysng the effect of abiotic factors on z

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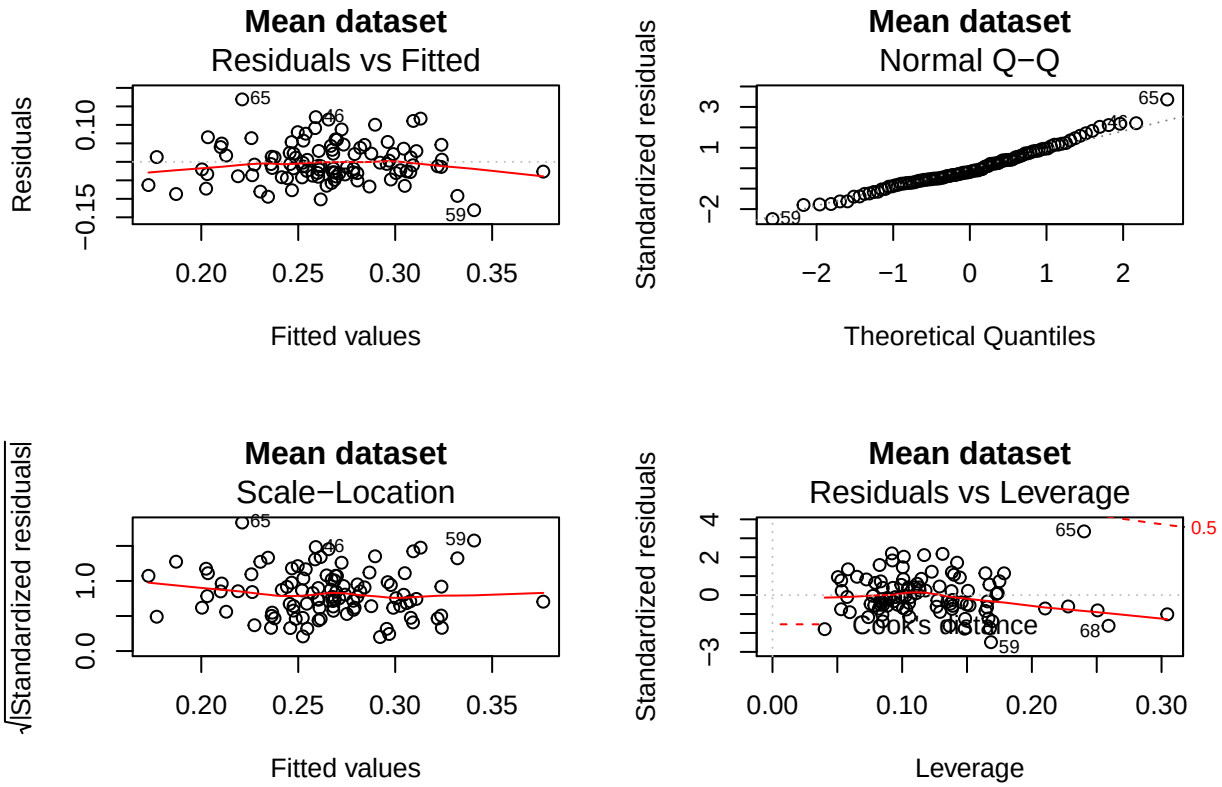
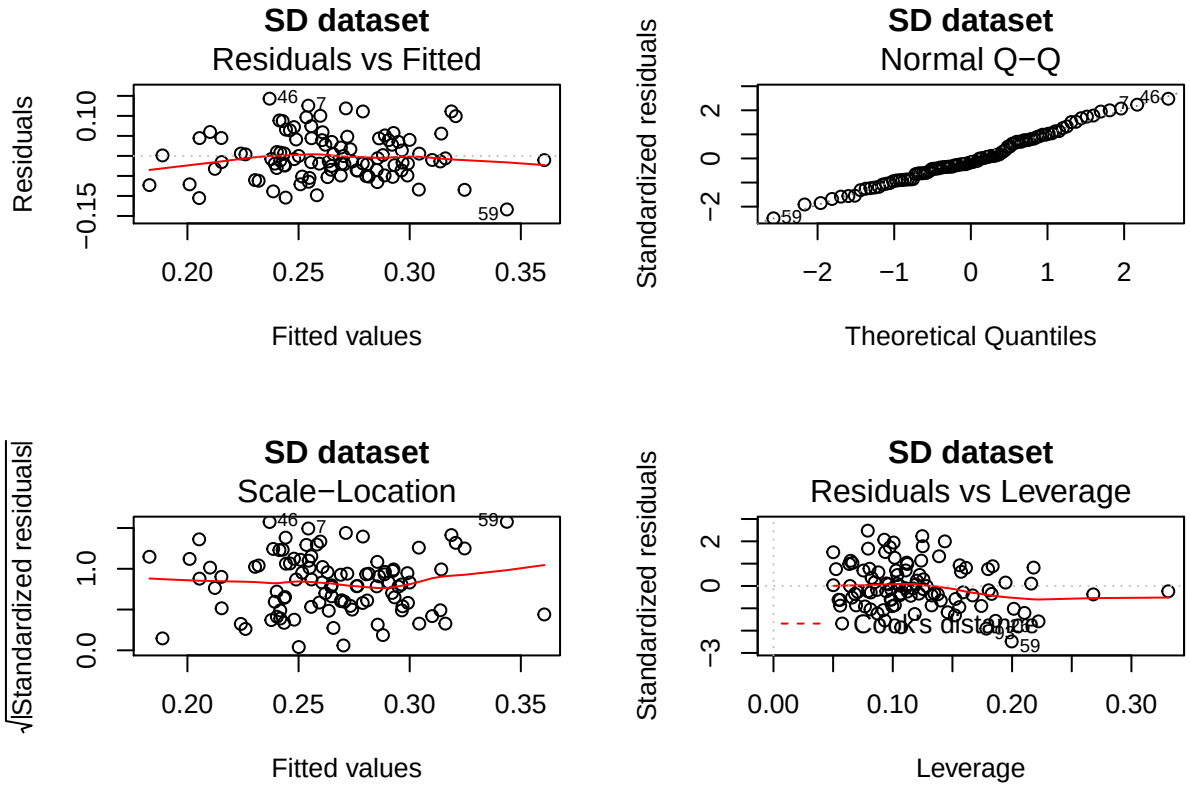


The two site with the highest values of PHI had high leverage in this model and were therefore removed from the data in order to give normally distributed residuals, the plots above were created after these values were removed.



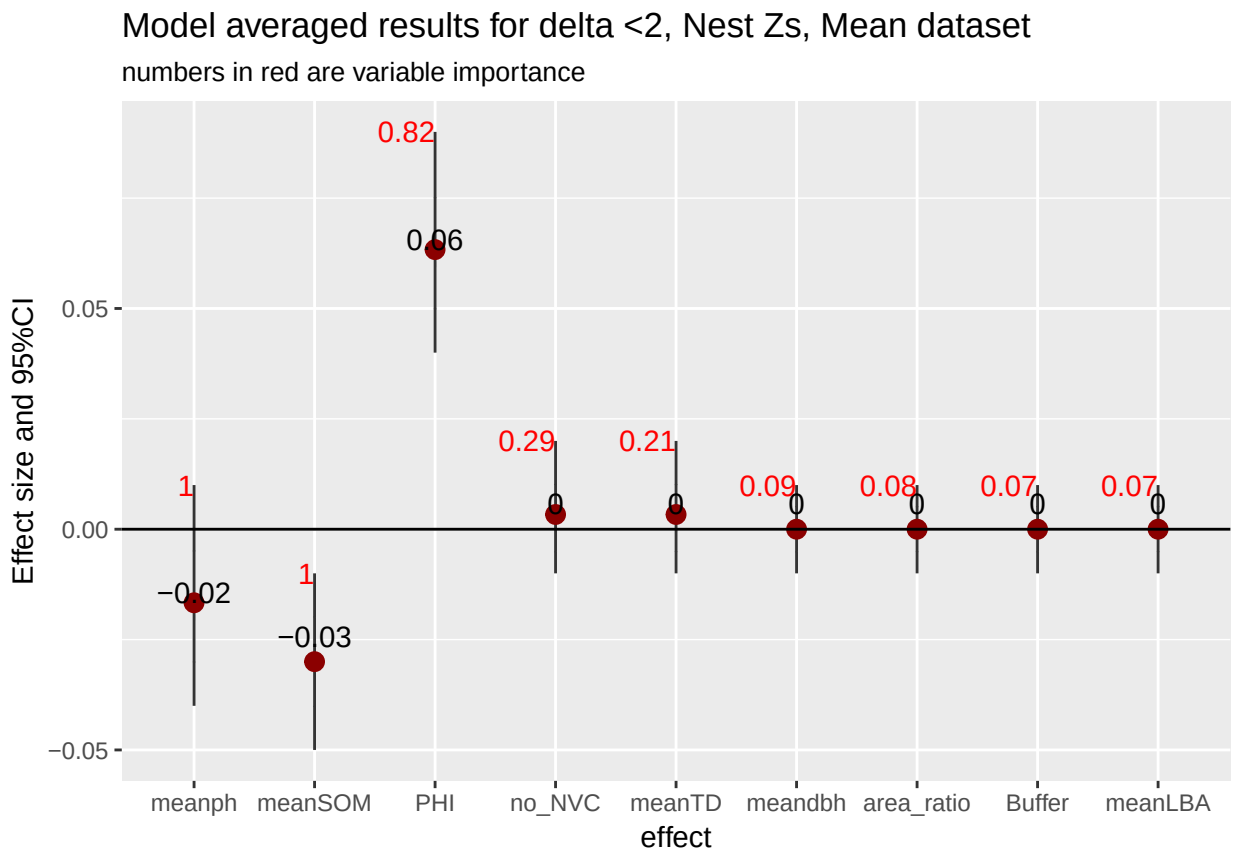

```
##   Northing        PHI    meandbh     meanph     Buffer    meanSOM
##   1.721261   1.219326   2.031493   1.356264   1.816954   1.158692
##    meanLBA     meanTD area_ratio     no_NVC     no_MSG
##   1.708121   1.955180   1.230977   1.292059   1.263801
```

The variance inflation factors in the mean dataset are low, suggesting that correlations between covariates are low and not likely to increase the variance of the paramater estimates.

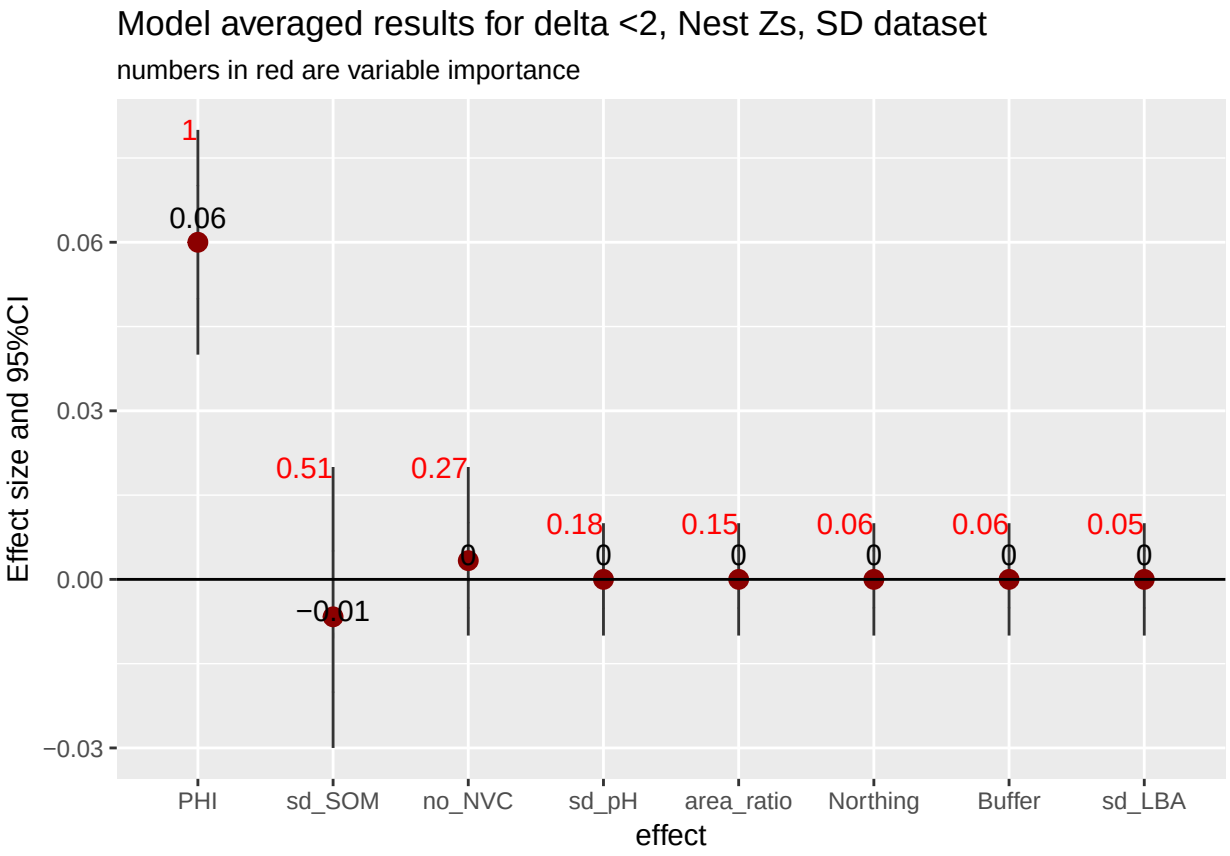
```
##   Northing        PHI     Buffer     no_MSG     no_NVC      sd_pH
##   1.713097   1.275714   1.860168   1.241747   1.277452   1.328220
##     sd_SOM     sd_LBA sd_meandbh      sd_TD area_ratio
##   1.412783   1.188175   1.521227   1.501602   1.257226
```

The variance inflation factors in the sd dataset are also low

The first ten models from the mean dataset, which had a delta <2 were selected from the MuMin dredge funtion as the top model set.



The graph shows the averaged effect sizes of the model with delta < 2. PHI and soil organic matter can be seen to effect the value of z.


Model averaged results for delta <2, Nest Zs, SD dataset
numbers in red are variable importance
Effect size and 95%CI
0.06
0.03
0.00
−0.03
1
0.06
0.51
−0.01
0.27
0
0.18
0
0.15
0
0.06
0
0.06
0
0.05
0
PHI
sd_SOM
no_NVC
sd_pH
area_ratio
Northing
Buffer
sd_LBA
effect

Using the model for prediction