Summary of the data - Rhön

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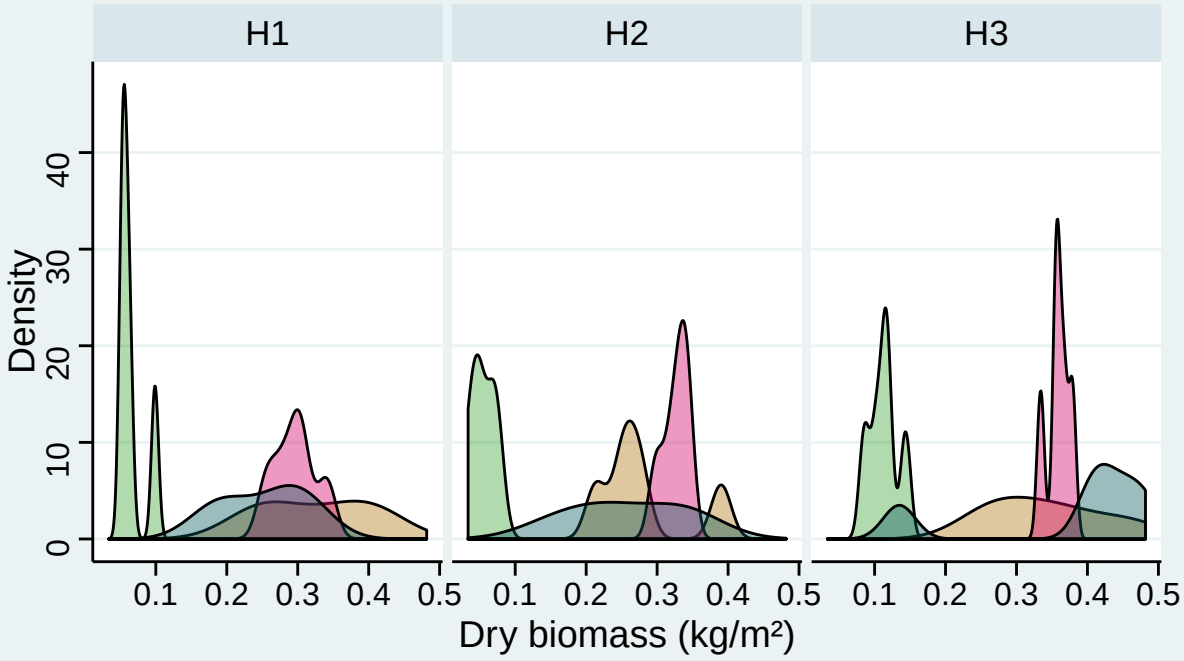
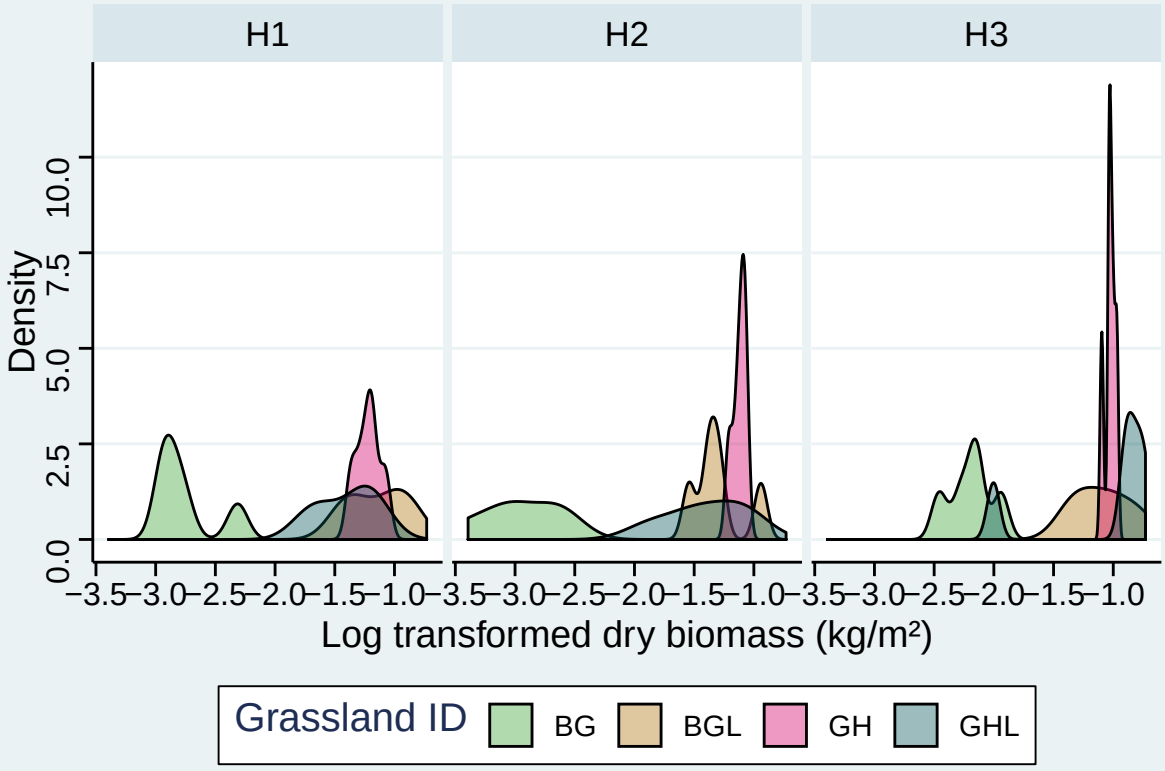
1 Reading and visualise trait data

1.1 Biomass data

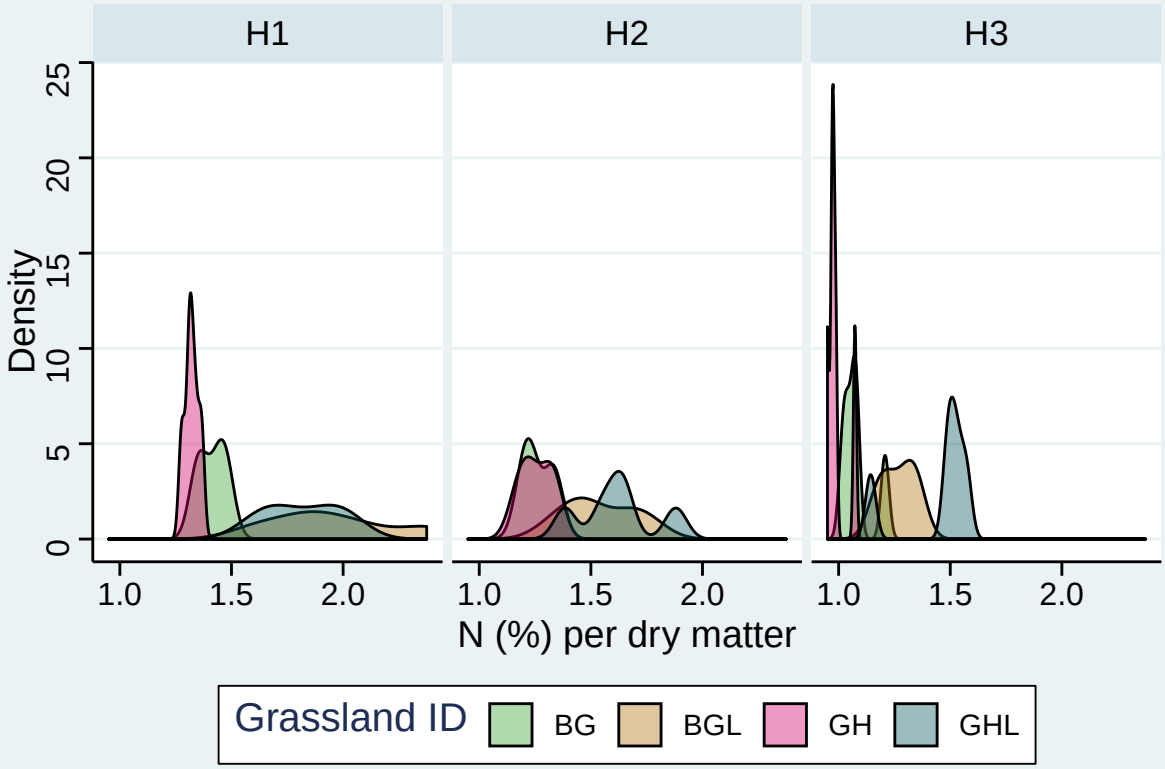


Dry biomass data (Rhön)

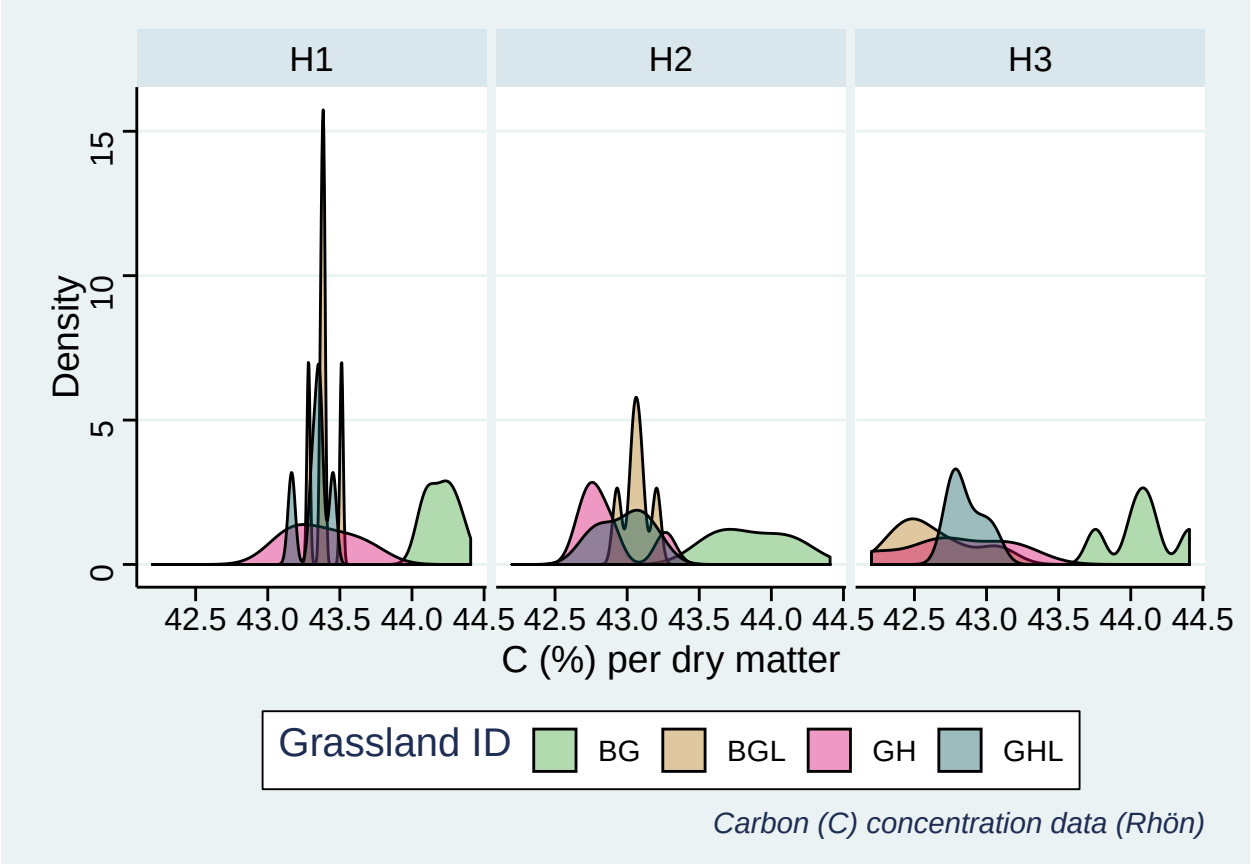


Log transformed dry biomass data (Rhön)

1.2 Nitrogen (N) and Carbon (C) data

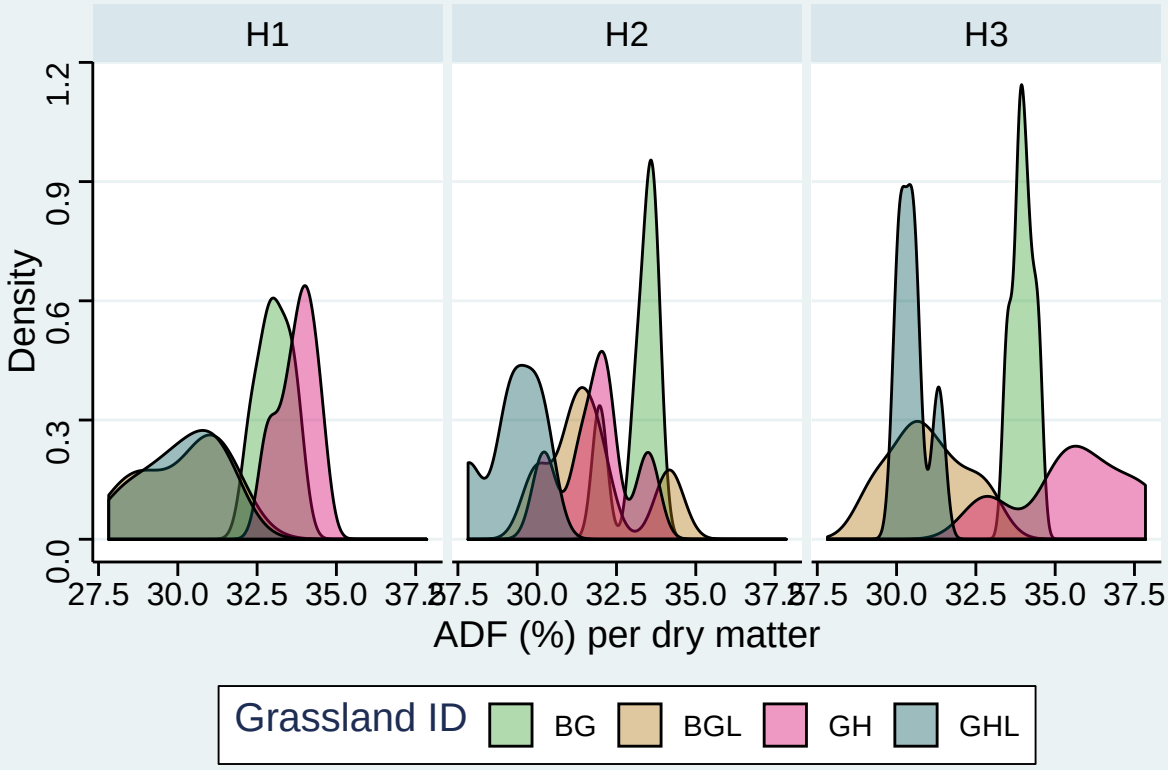


Nitrogen (N) concentration data (Rhön)



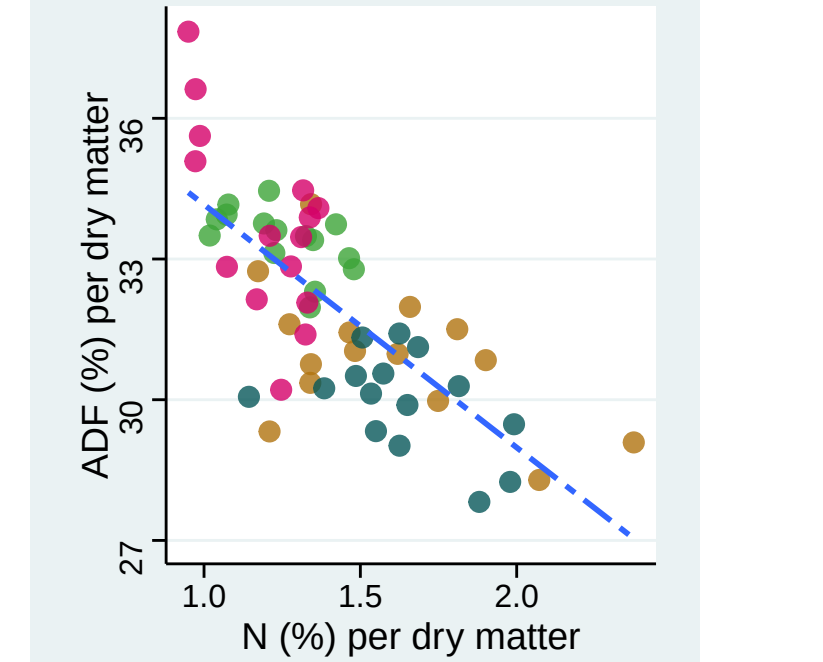
Carbon (C) concentration data (Rhön)

1.3 ADF data



Acid detergent fiber (ADF) concentration data (Rhön)

1.4 ADF data



Nitrogen (N) vs Acid detergent fiber (ADF) data (WIZ)

2 Hyperspectral data

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Summary of Speclib


Summary of spectra
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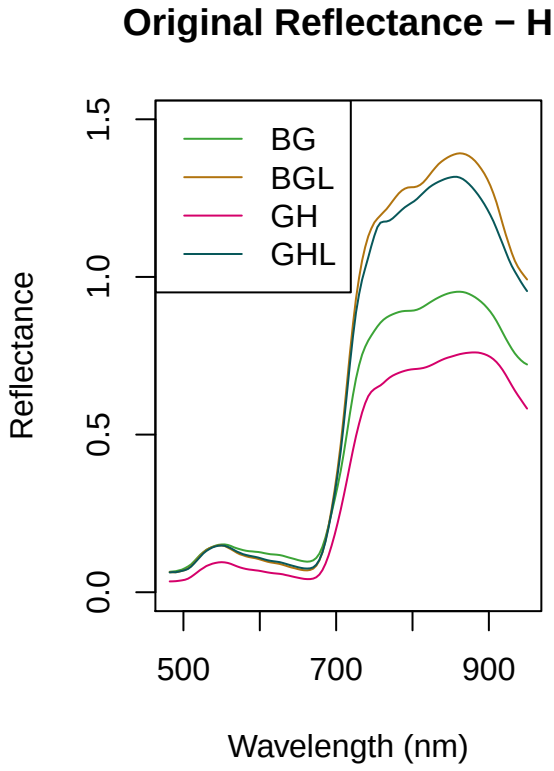
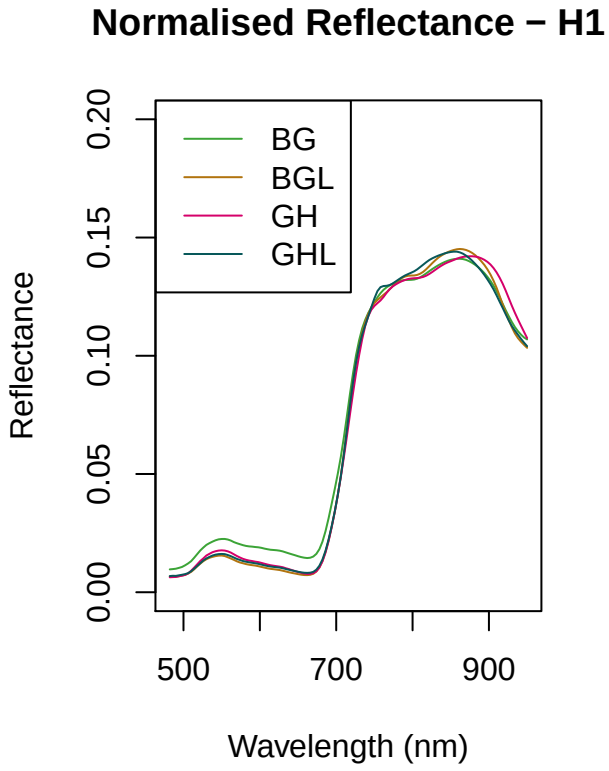
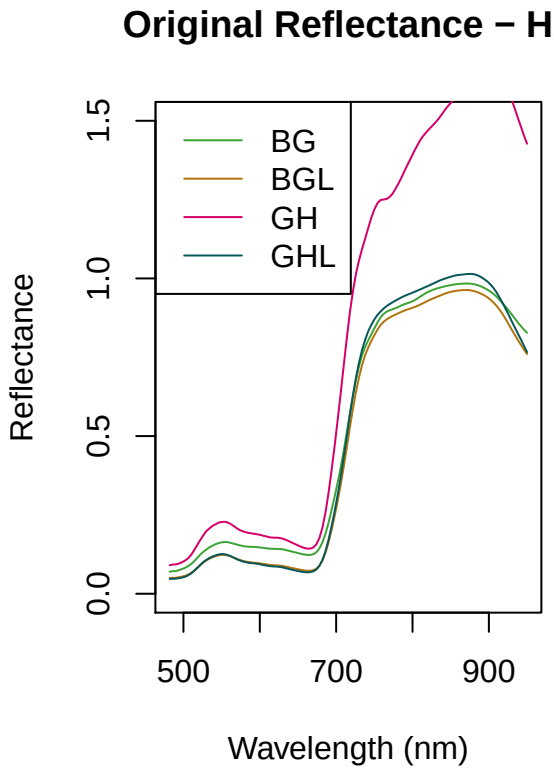
Total number of spectra : 60
Number of bands : 118
Width of bands : 4
Spectral range of data : 482 - 950 nm

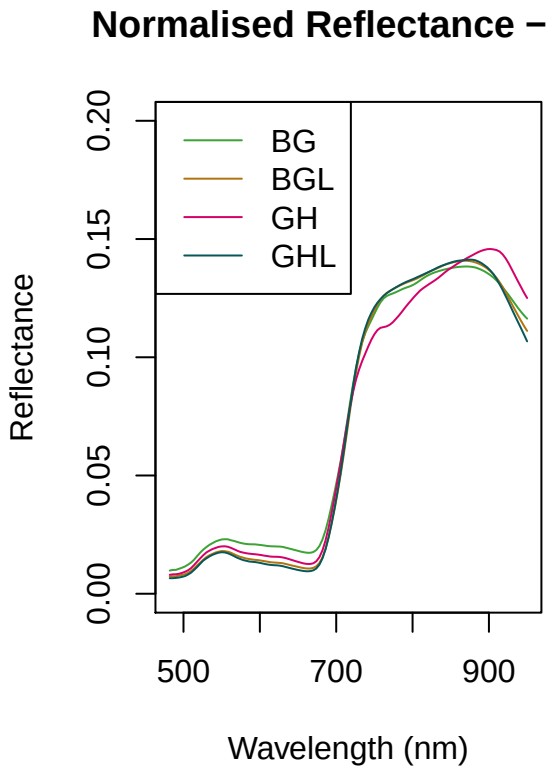

Speclib contains SI
--------------------
   Variables   Classes
1   field_id    factor
2      fp_id character
3    harvest    factor
4        PAN   numeric
5     lab_no   integer
6         fb   numeric
```

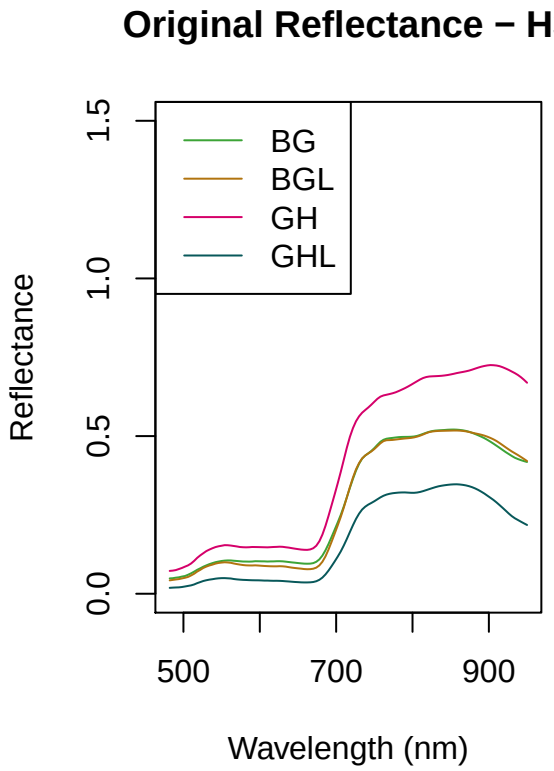
```
7  fb_samlpe   numeric
8  db_sample   numeric
9       db_p   numeric
10        db   numeric
11     logdb   numeric
12         n   numeric
13         c   numeric
14  cn_ratio   numeric
15       adf   numeric
```

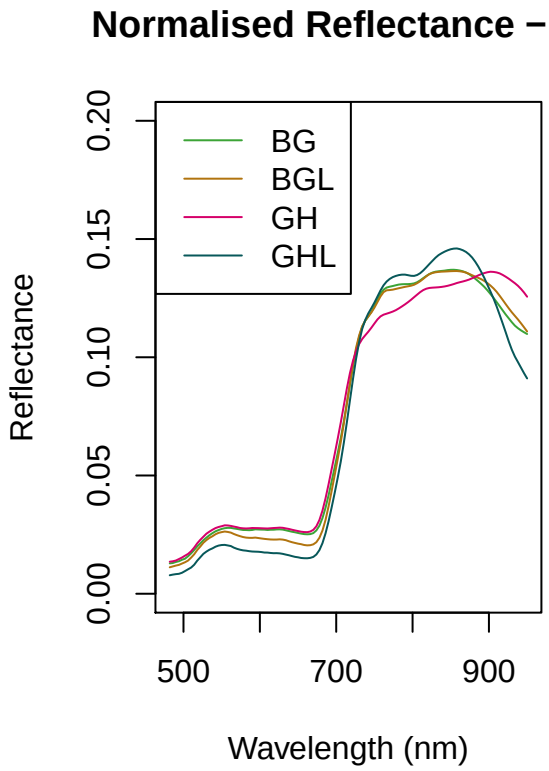




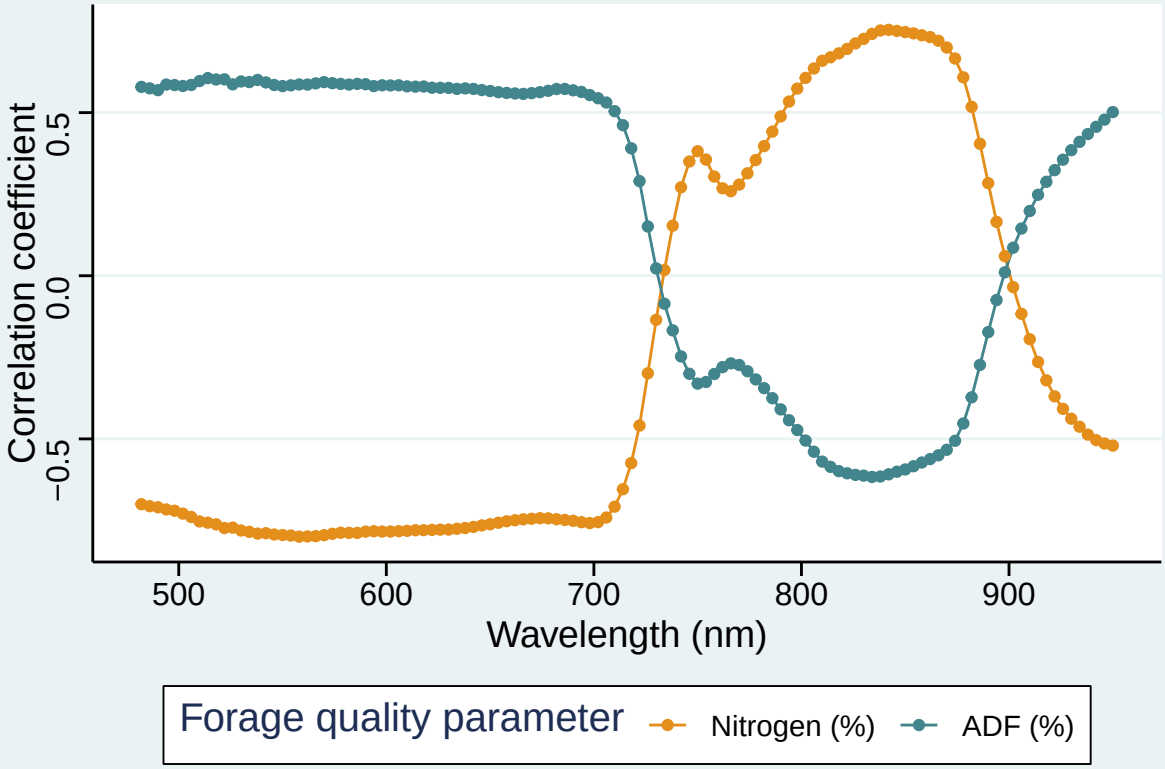

Original Reflectance − H2
Reflectance
0.0
0.5
1.0
1.5
500
700
900
Wavelength (nm)
BG
BGL
GH
GHL


Normalised Reflectance − H2
Reflectance
0.00
0.05
0.10
0.15
0.20
500
700
900
Wavelength (nm)
BG
BGL
GH
GHL


Original Reflectance − H3
Reflectance
0.0
0.5
1.0
1.5
500
700
900
Wavelength (nm)
BG
BGL
GH
GHL

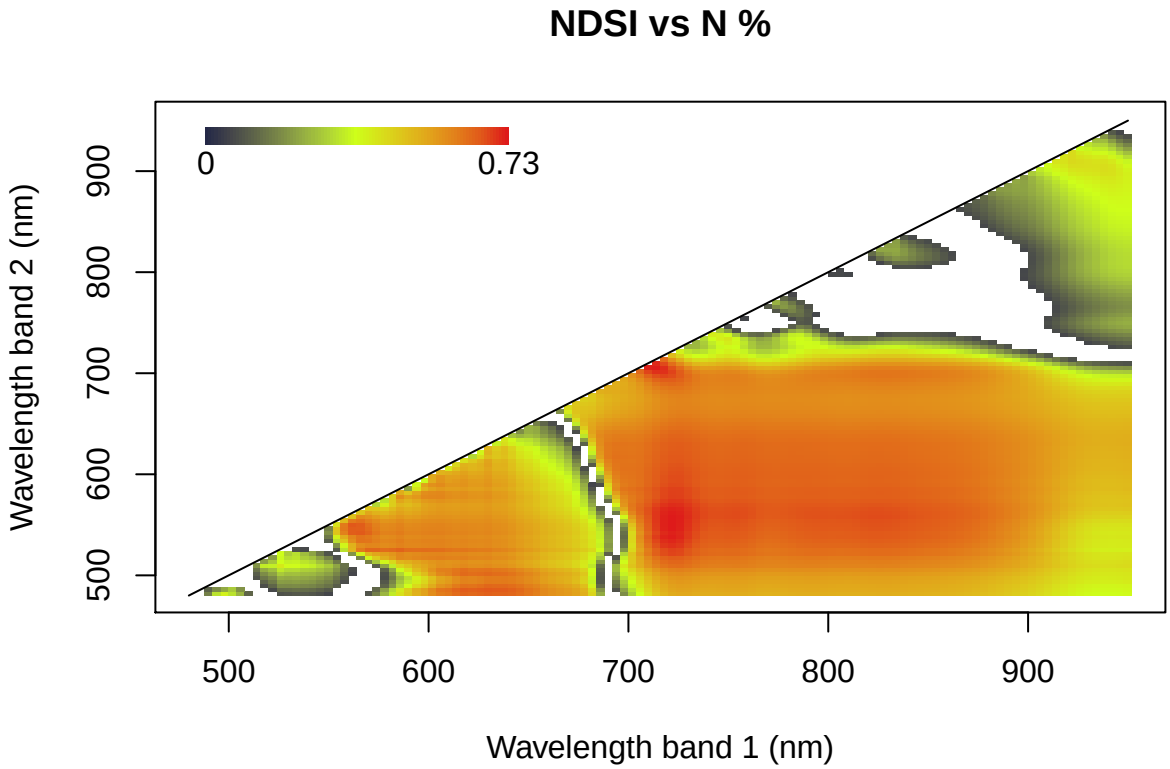

Normalised Reflectance − H3
Reflectance
0.00
0.05
0.10
0.15
0.20
500
700
900
Wavelength (nm)
BG
BGL
GH
GHL

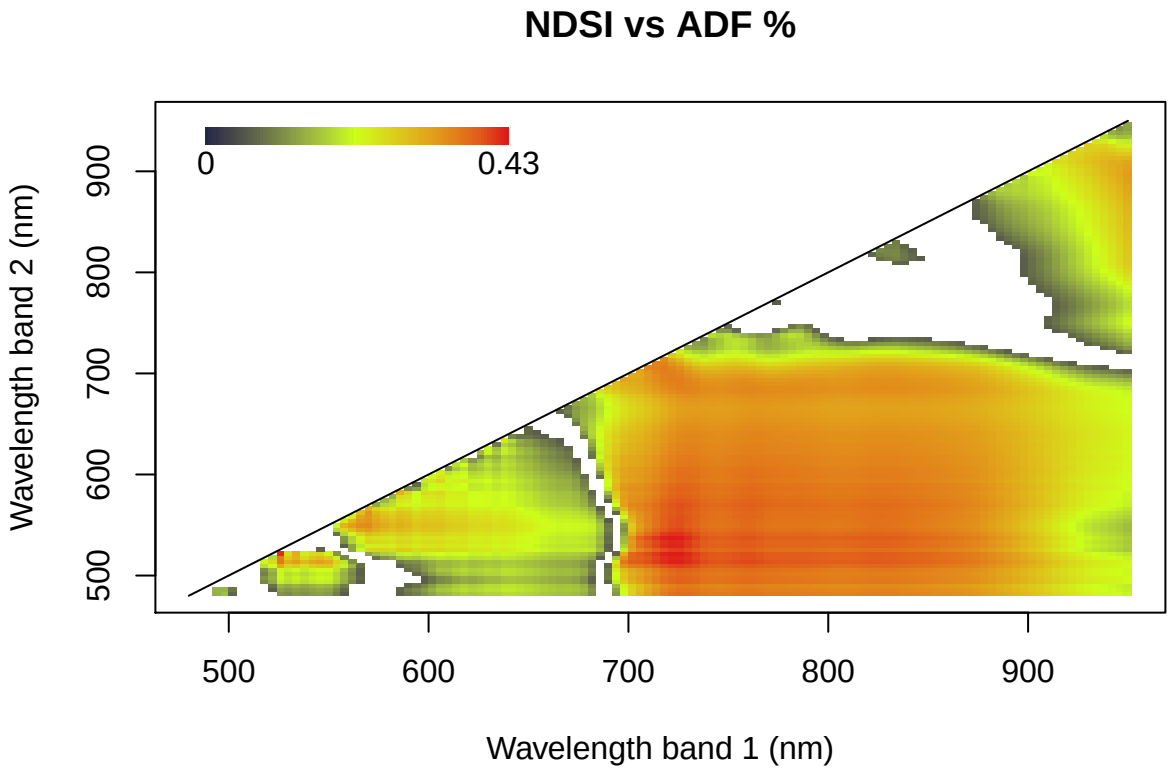
3 Correlation with single bands



Correlation coefficient with normalised spectral reflectance vs N (%) and ADF (%) (Rhön)

4 Linear regression models with normalised difference spectral indices (NDSI)




NDSI vs ADF %
0
0.43
Wavelength band 2 (nm)
500
600
700
800
900
Wavelength band 1 (nm)
500
600
700
800
900