

Spectral Instrument Comparison – Toolik 2019

Ruby An

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R markdown document for comparing spectral instruments at Toolik. Will update with methods eventually. . . . currently function mainly to organize code into digestable chunks. See plots at the bottom for a “comparison” starting point.

Required Packages & Set-up

Functions

R functions scraped from Ruby’s unispec code to facilitate processing.

Load Data & File Keys

Unispec-DC Pre-Processing

Function for correcting a set of files with a set of listed references. This is the “multispec” equivalent for Unispec-DC files.

Read & Calculate NDVI

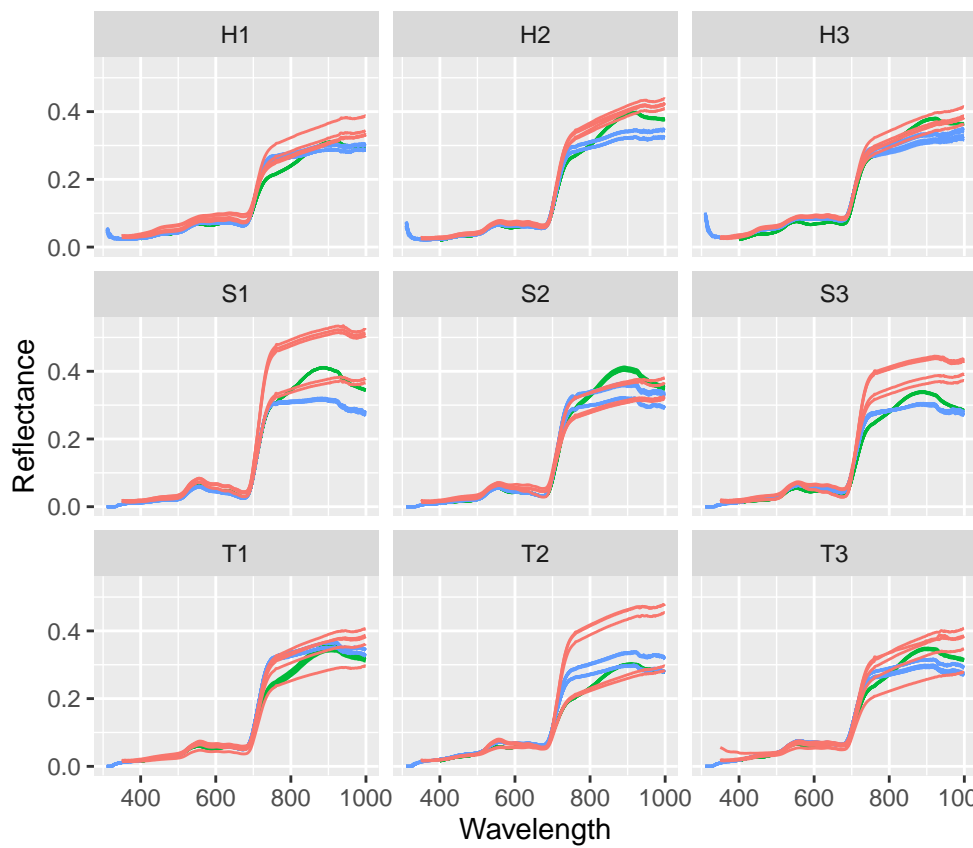
Load all data files.

```
## Warning: Missing column names filled in: 'X9' [9]
```

Multispectral Comparisons (ASD, Unispec-SC, Unispec-DC)

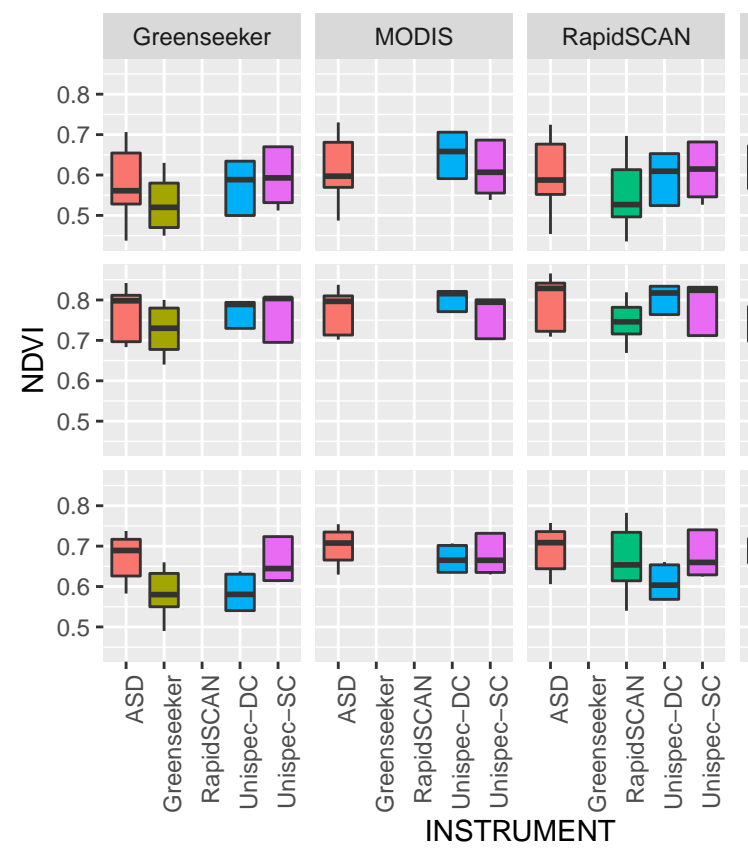
Instrument comparison on LTER 2006 MAT plots (Block 2, CT [tussock] & F10 [shrub]) and nearby Dry Heath [heath].

Plot full spectra



Plots full spectra for ASD and Unispec's.

NDVI comparisons



Columns are “NDVI-definition” and rows are vegetation type.