Midterm presentation

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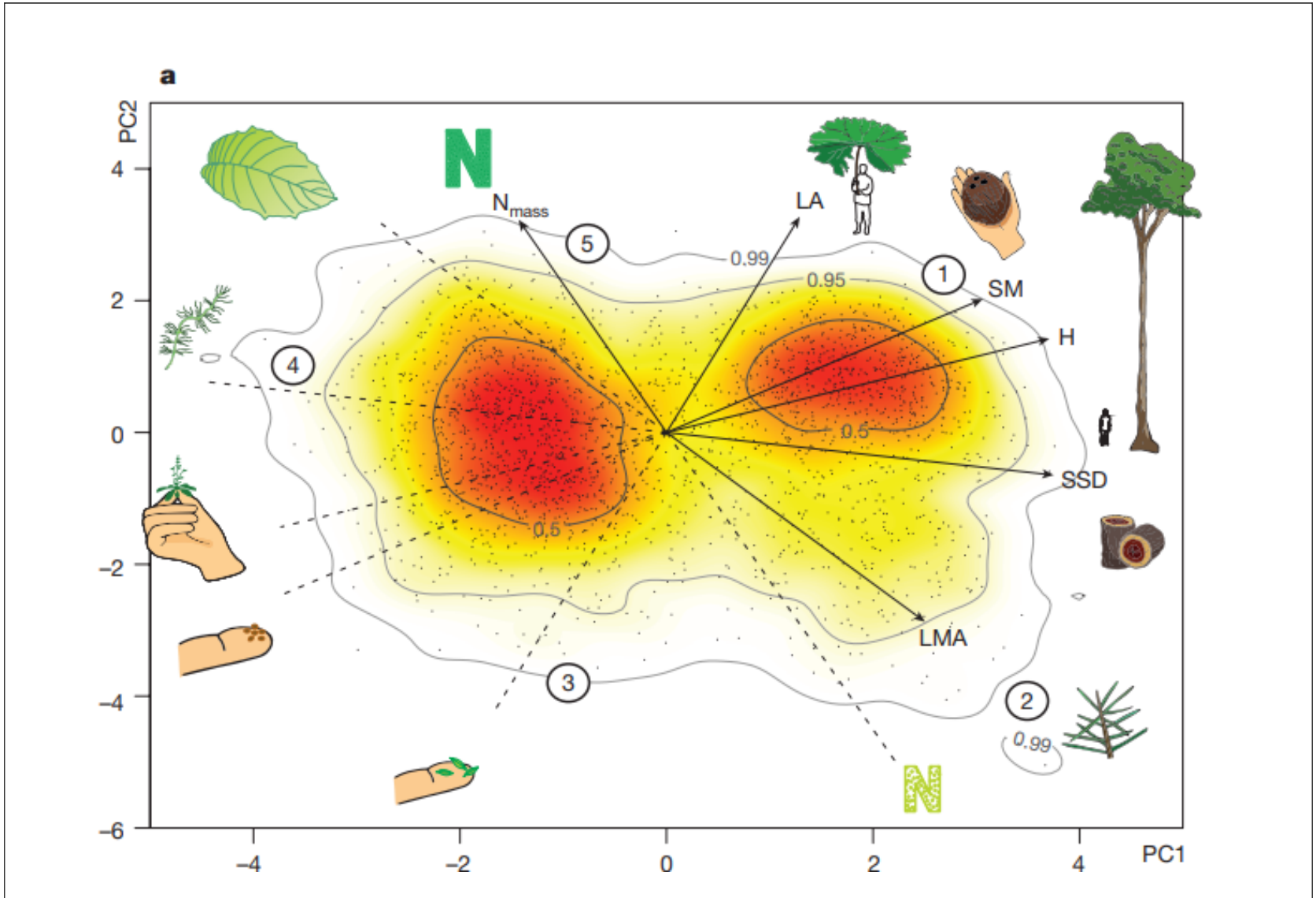
Background

The global spectrum of plant form and function

Díaz et al. (2016) - Nature



Research question

Global spectrum of plants - Using additional traits

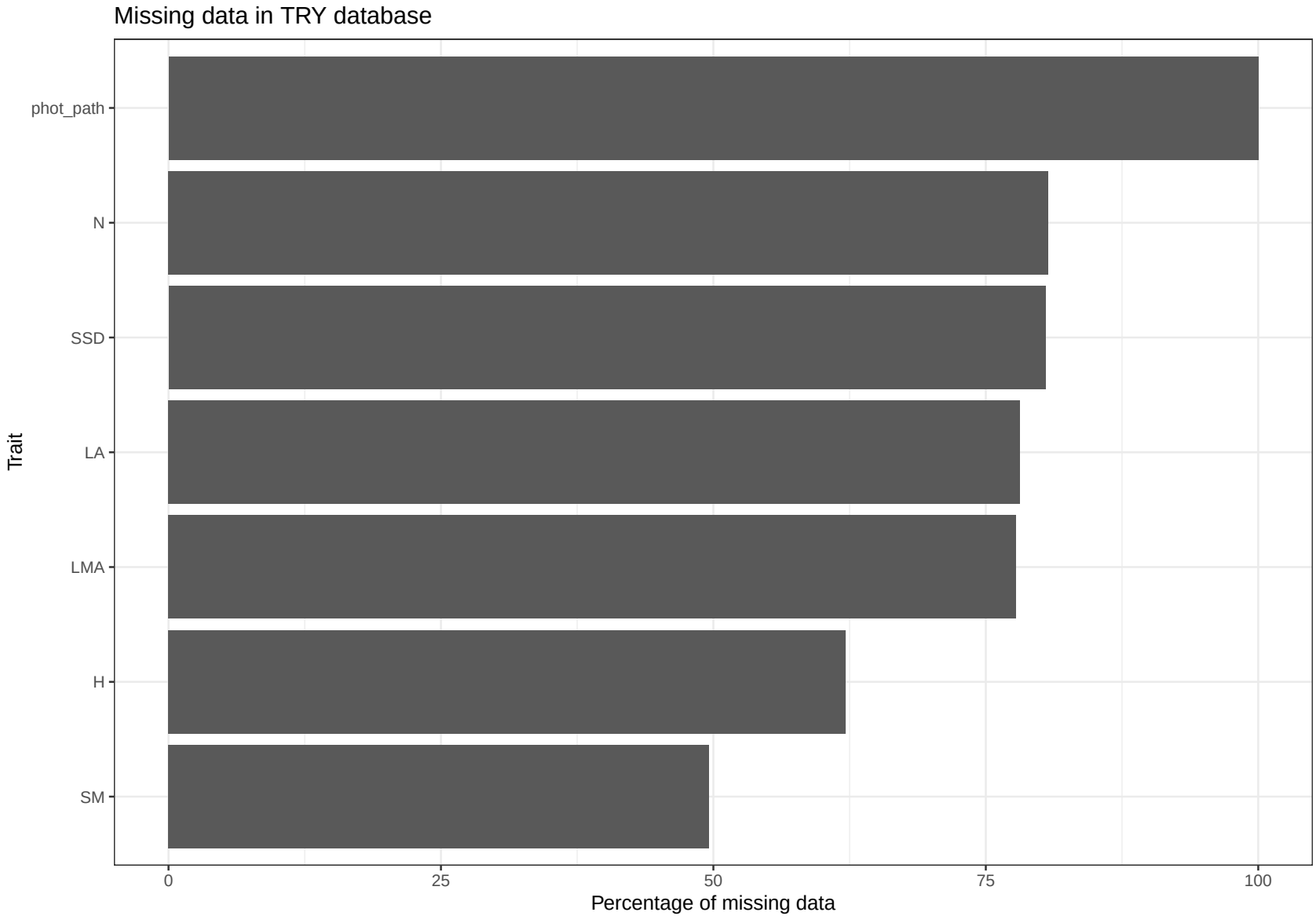
New data sets:

- GRooT (Global Root Trait) Database
- GIFT (Global Inventory of Floras and Traits)

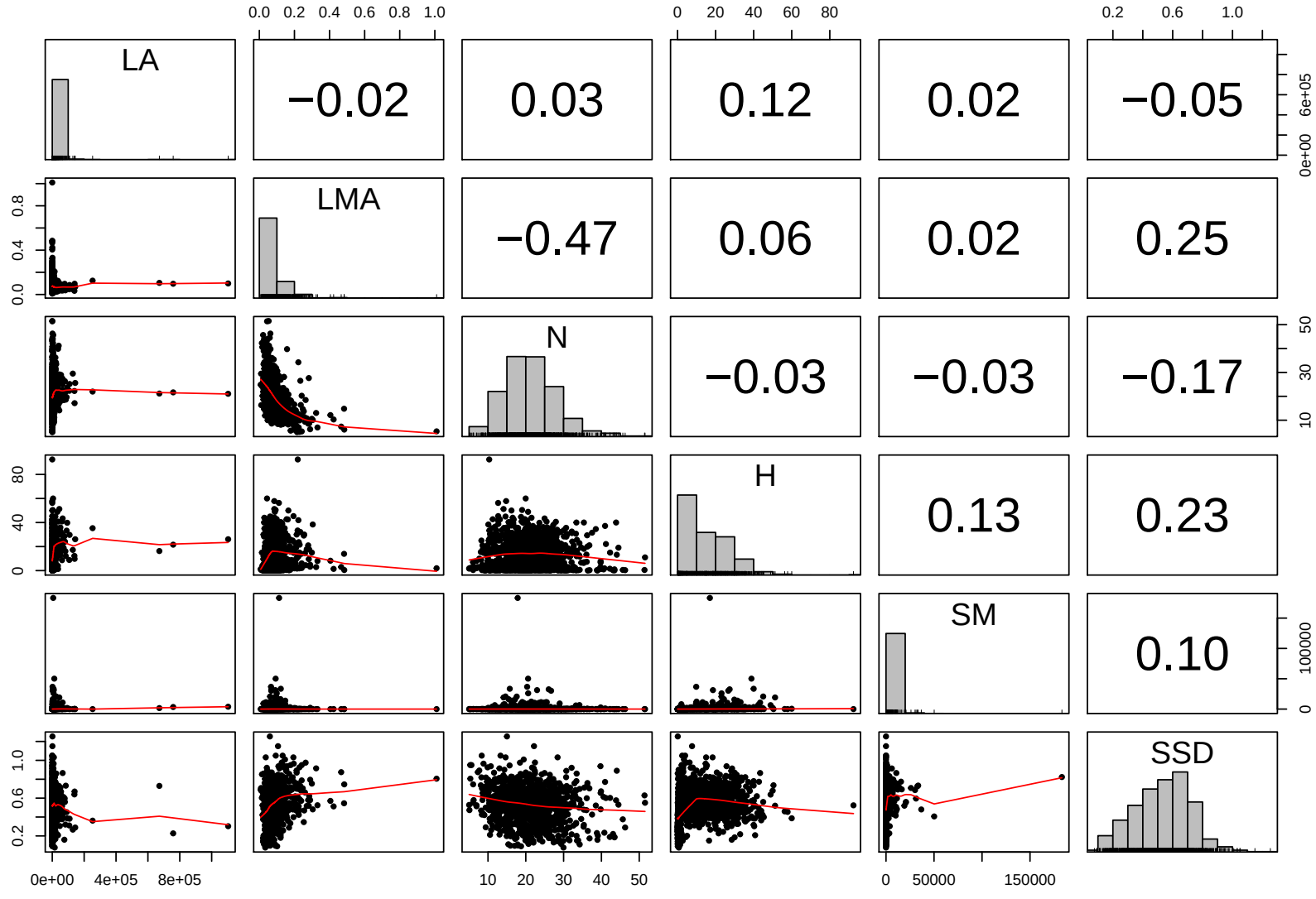
Reimplementation of Díaz paper

- Accessing TRY database
- Selection of traits
- Removing outliers
- Normalization and log-transformation
- PCA (Principal Component Analysis)

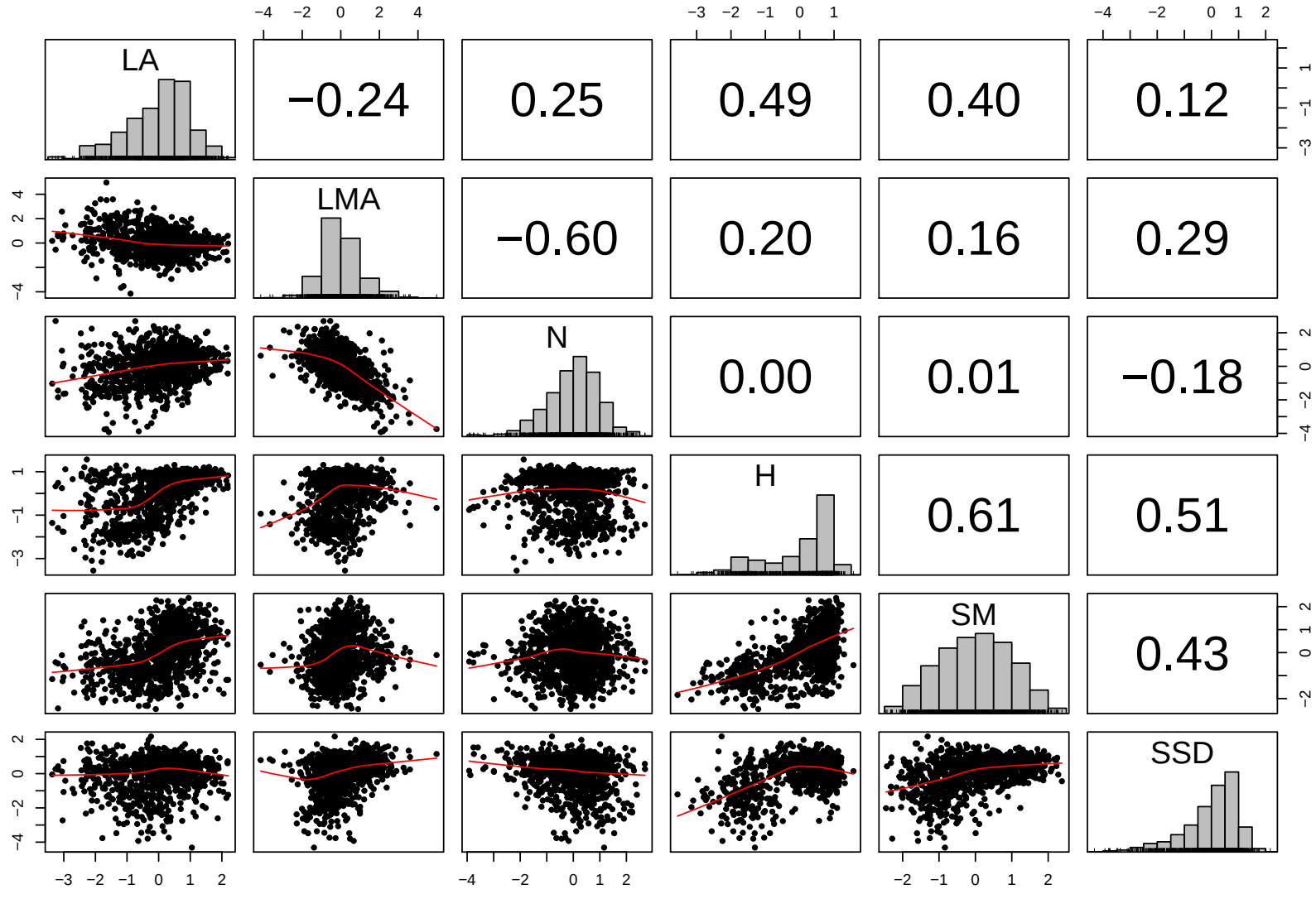
Selection of traits



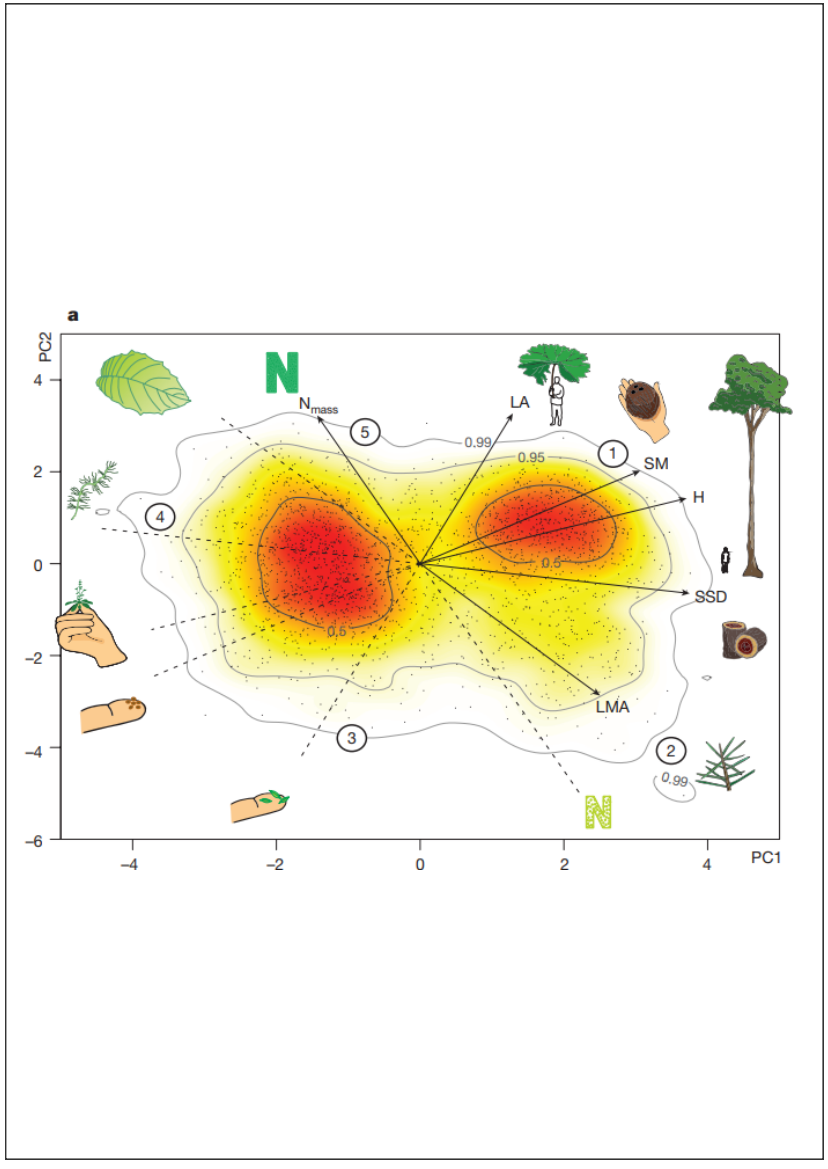
Removing outliers

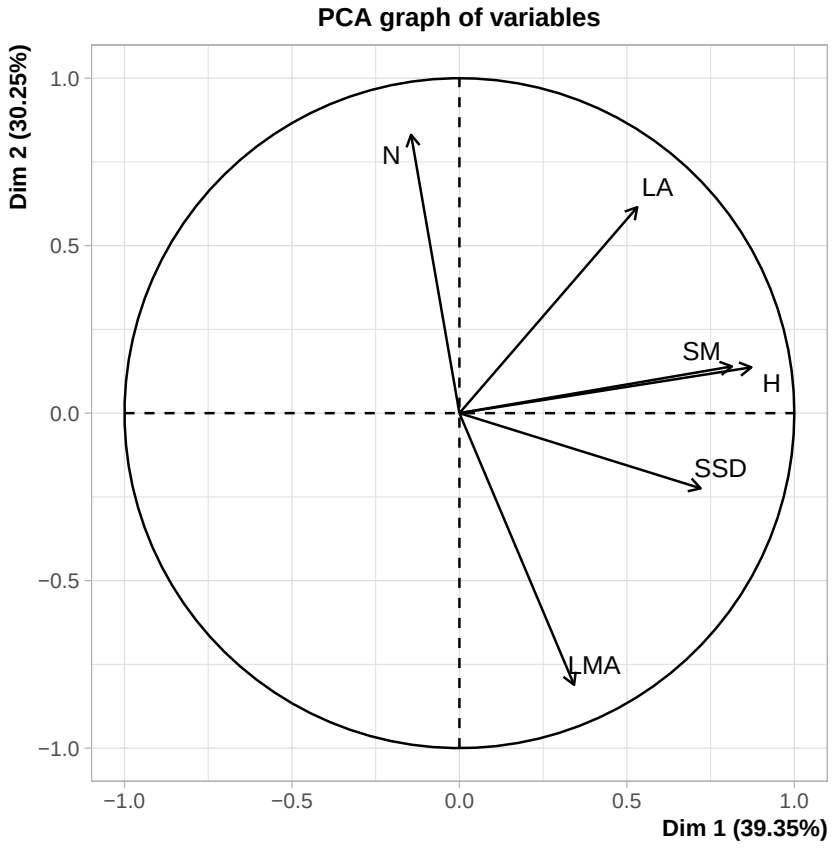


Normalization and log-transformation of data

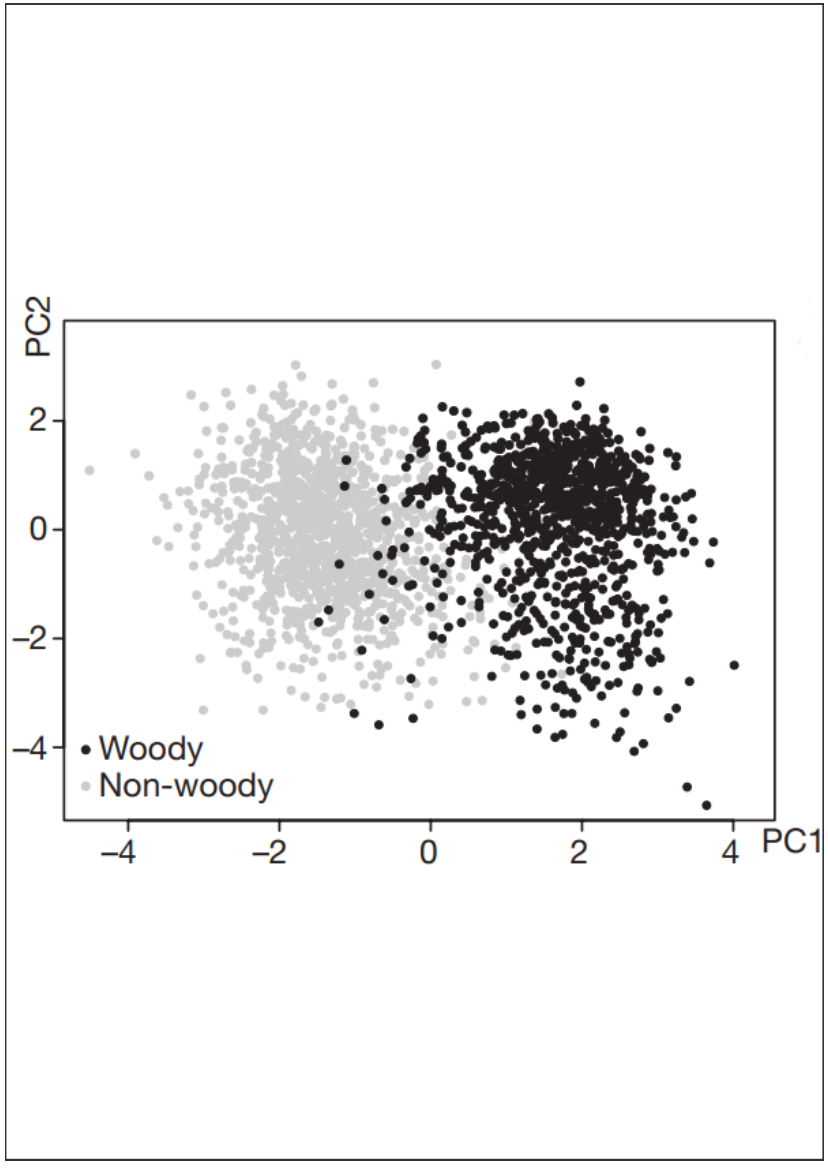


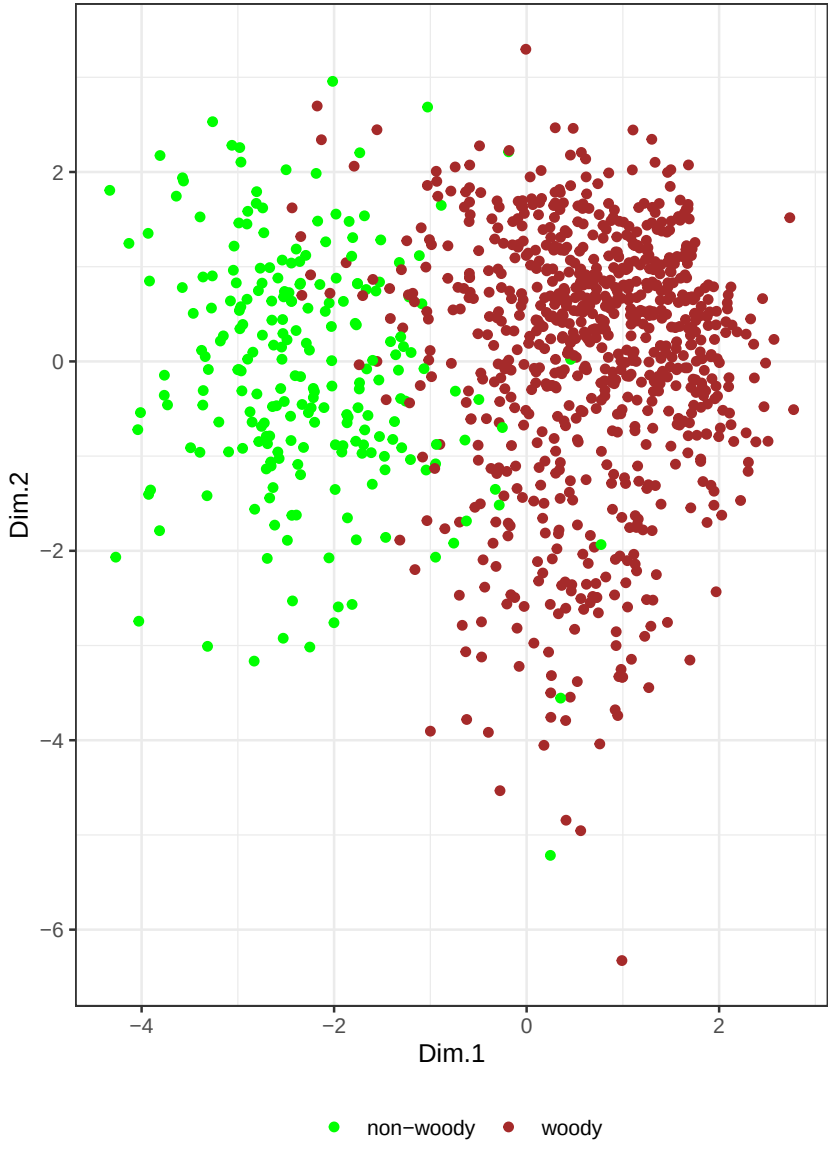
PCA (Principal Component Analysis)



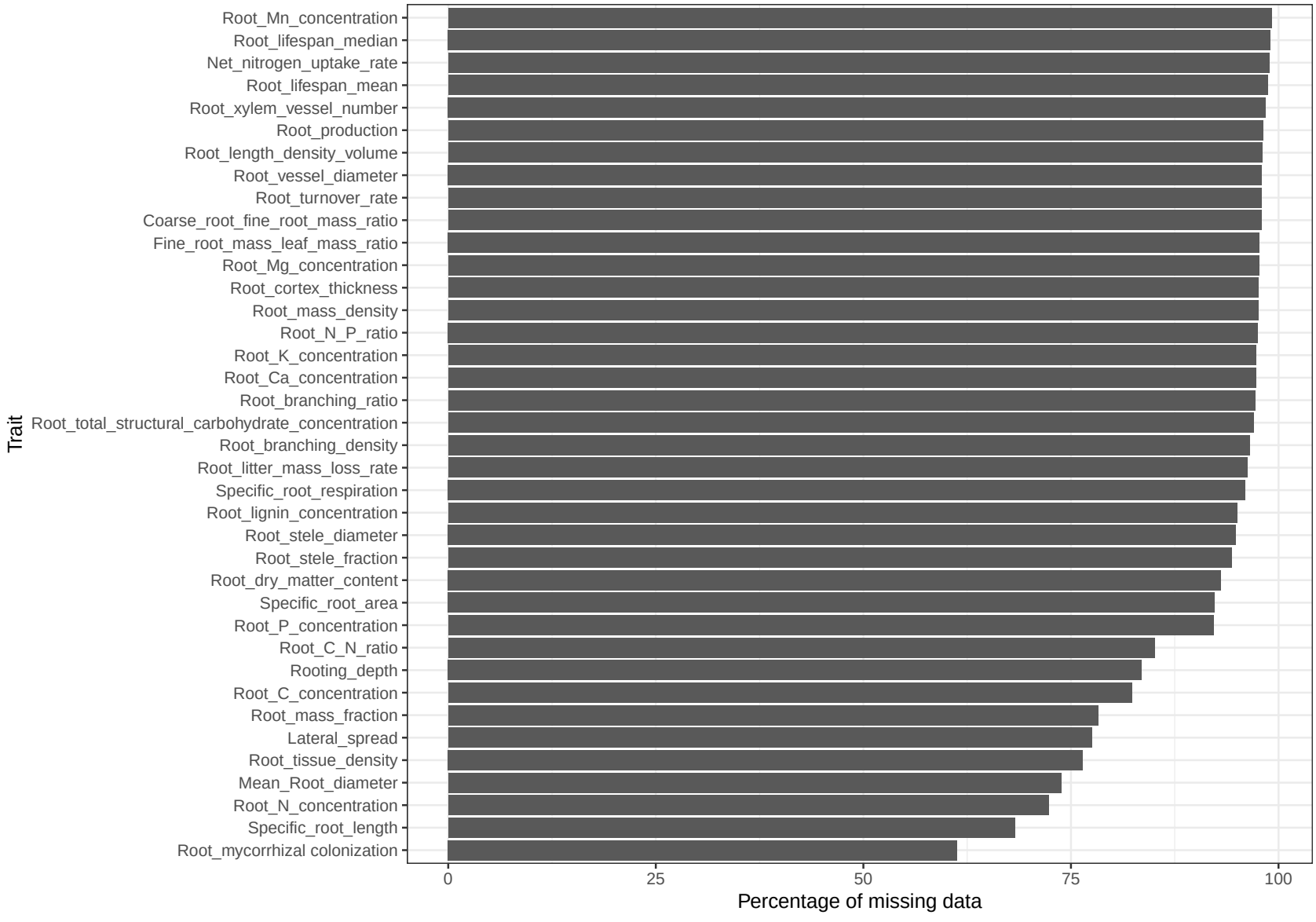


PCA (Principal Component Analysis) - Dividing between woody and non-woody species

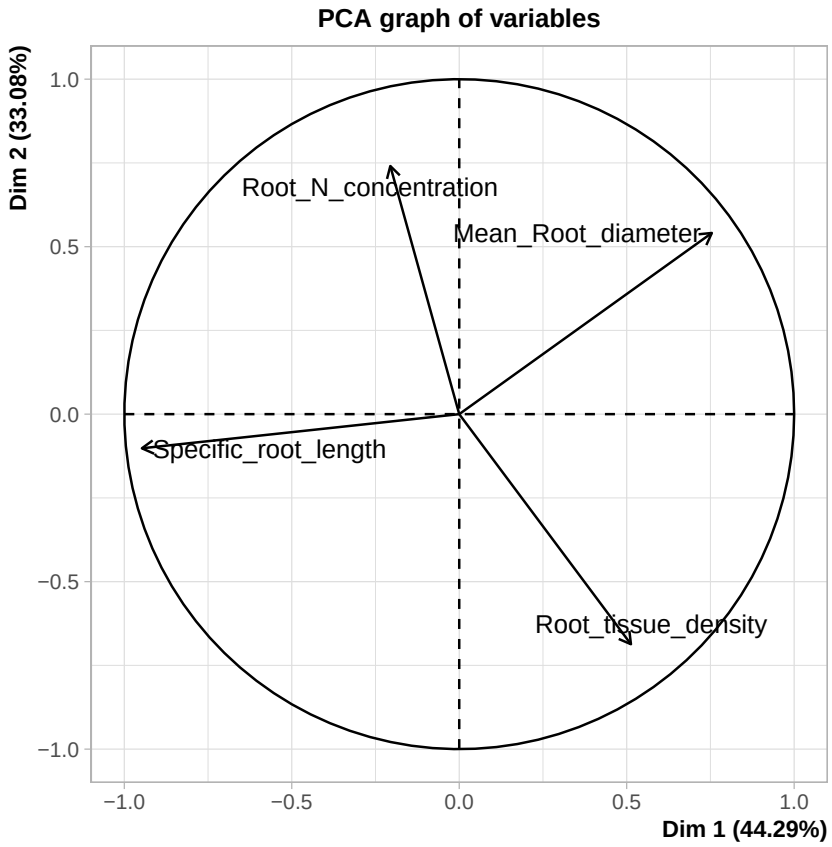


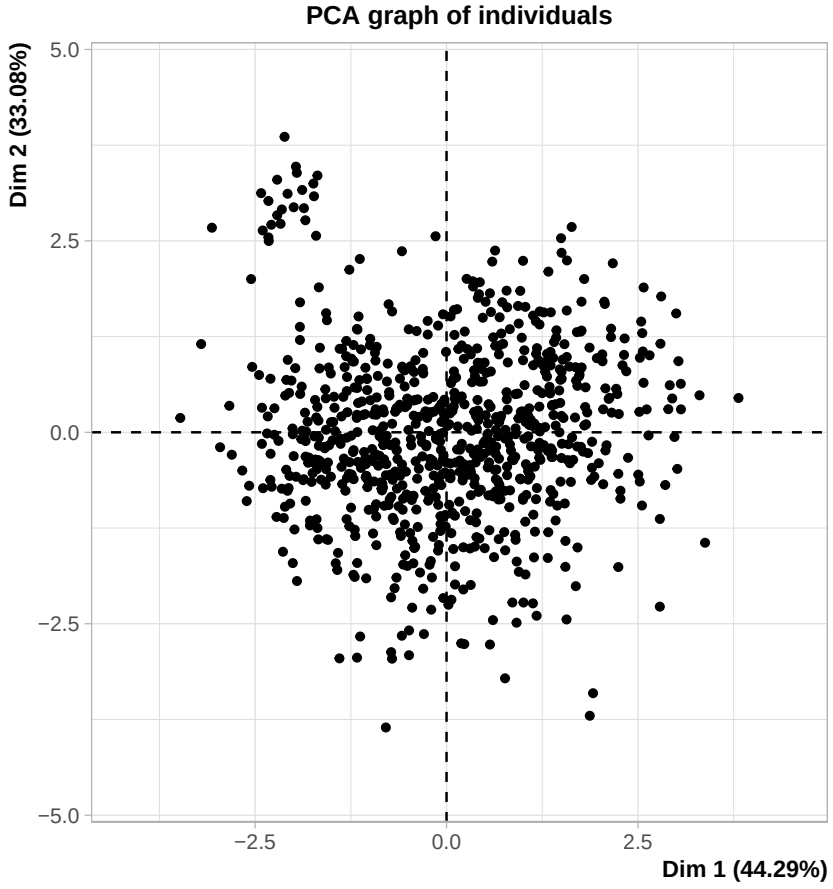


GRooT data set - Selection of traits



GRooT data set - PCA





GIFT (Global Inventory of Floras and Traits) data set

- Trait variables are both continuous and categorical –> regular PCA not possible
- Usage of PCoA (Principal Coordinates Analysis)

Final data analysis

- Select most important traits from each data set
- Merge selected traits to 1-2 data sets
- Performance of PCA/PCoA