Latticist on Frogs

A demonstration of the **latticist** package

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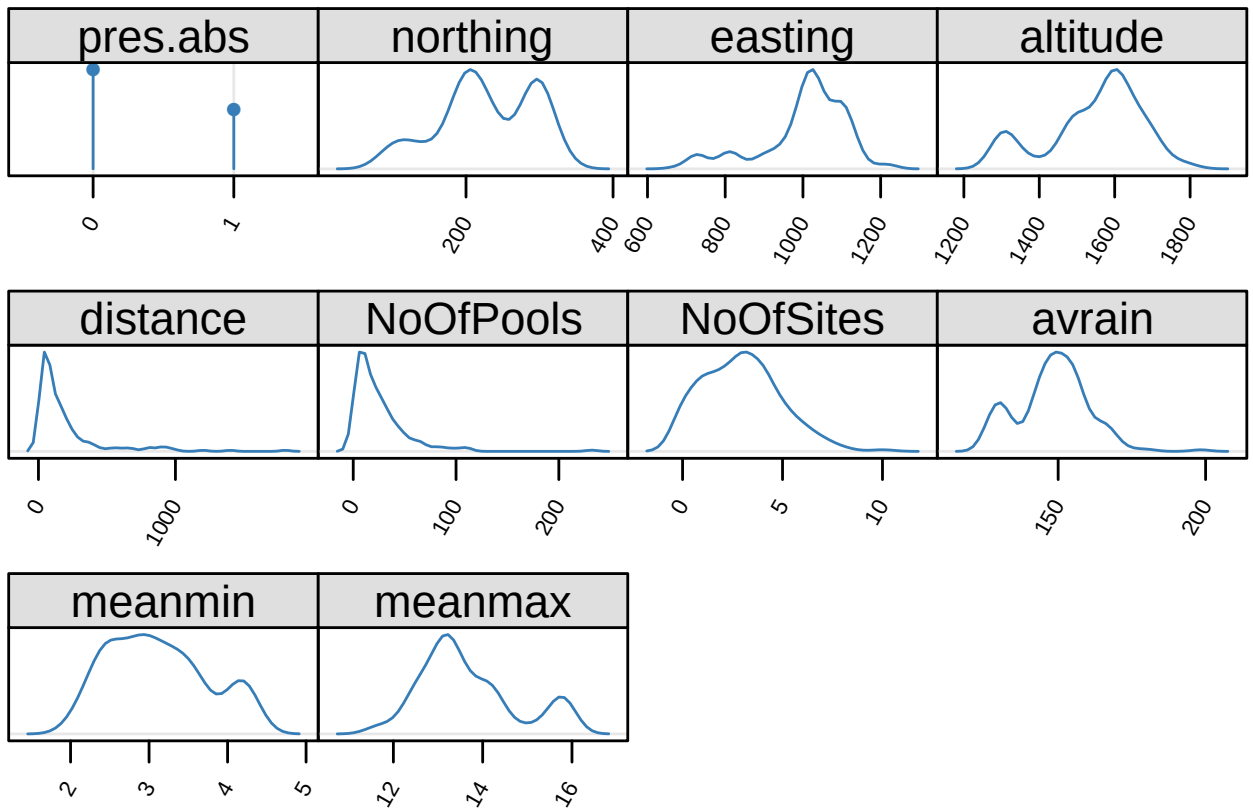
November 2008

Latticist

The **latticist** package provides an exploratory visualisation application inside R. It is primarily an interface to the **lattice** graphics system, although it also produces displays from the **vcd** package for categorical data.
This document gives a demonstration of **latticist** applied to the `frogs` dataset, available in the **DAAG** package.
The data are on the distribution of the Southern Corroboree frog, which occurs in the Snowy Mountains area of New South Wales, Australia. – *from* `?frogs`

Initial display

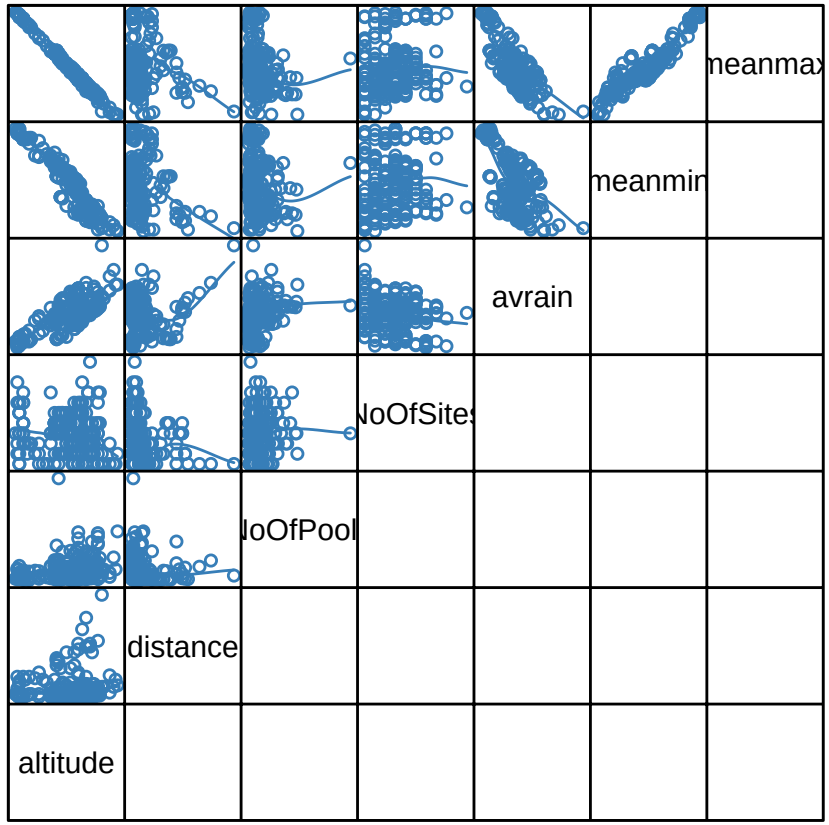
```
> spec <- list()
> latticist(frogs, spec = spec)
marginal.plot(frogs, data = frogs, sub = lis....
```



N = 212, 2008−11−11, R 2.8.0Patched

Scatterplot matrix with subset of variables

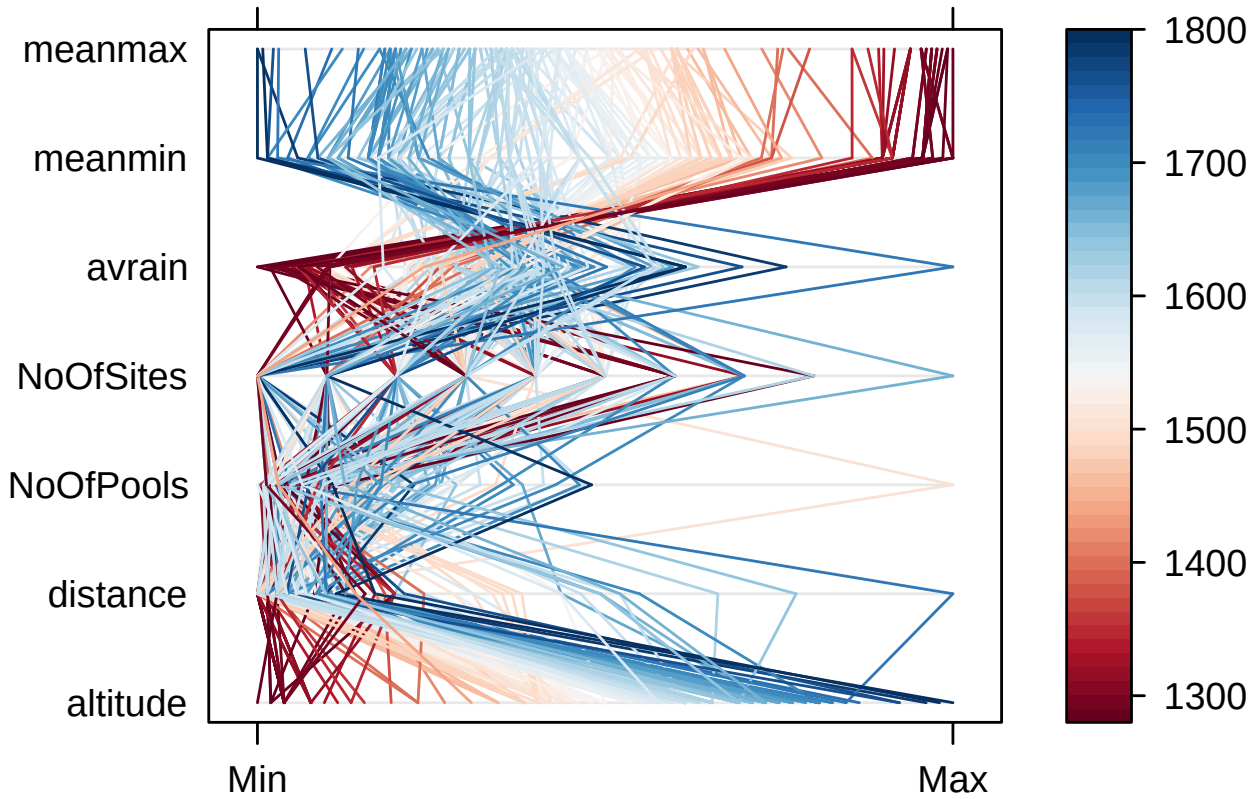
```
> spec <- list(varSubset = c("altitude", "distance",
      "NoOfPools", "NoOfSites", "avrain", "meanmin",
      "meanmax"), defaultPlot = "splom")
splom(~frogs[c("altitude", "distance", "NoOf....
```



Scatter Plot Matrix

Parallel plot with color (groups) variable

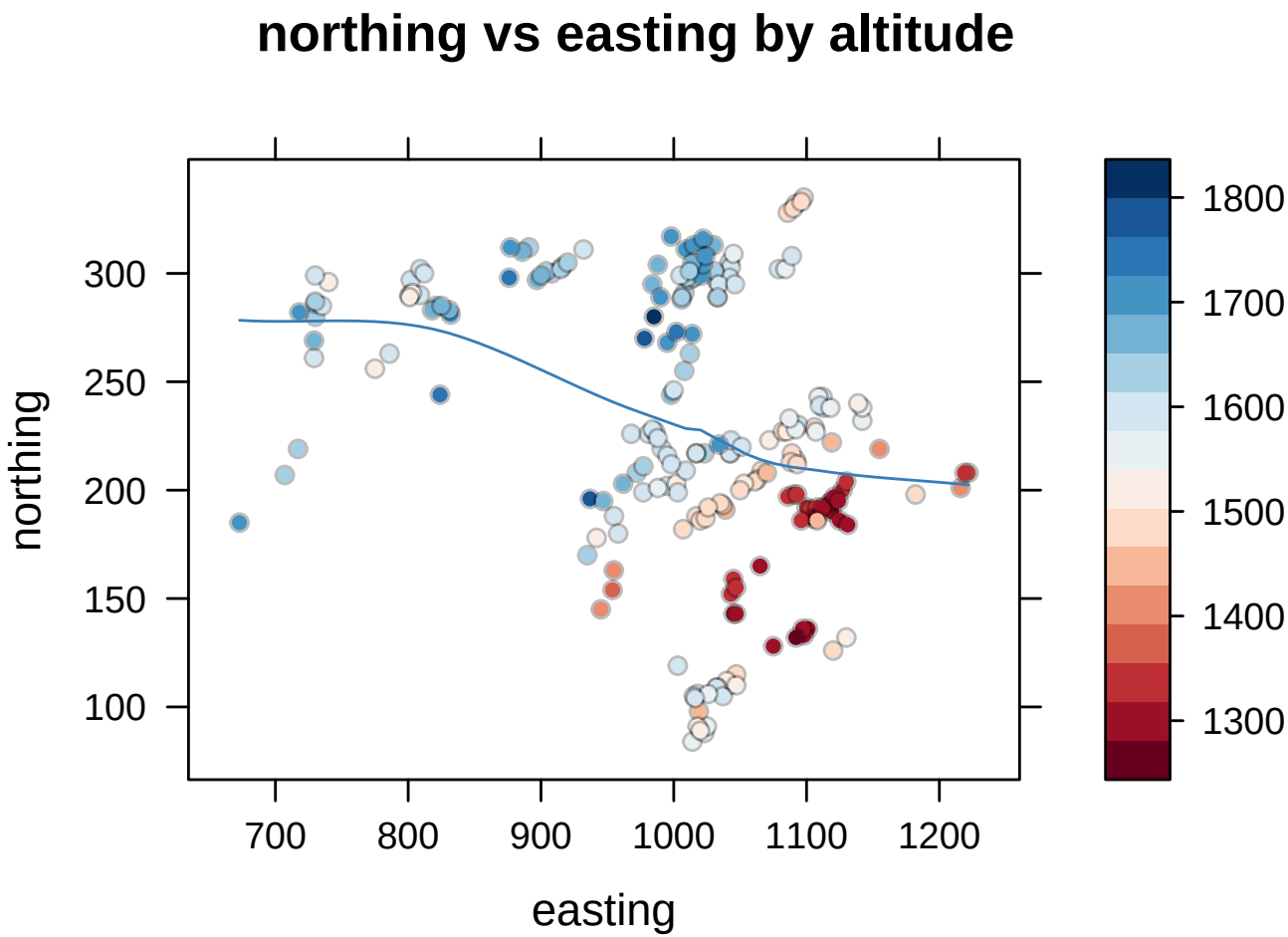
```
> spec$groups <- "altitude"
> spec$defaultPlot <- "parallel"
parallel(~frogs[c("altitude", "distance", "N....
```



N = 212, 2008−11−11, R 2.8.0Patched

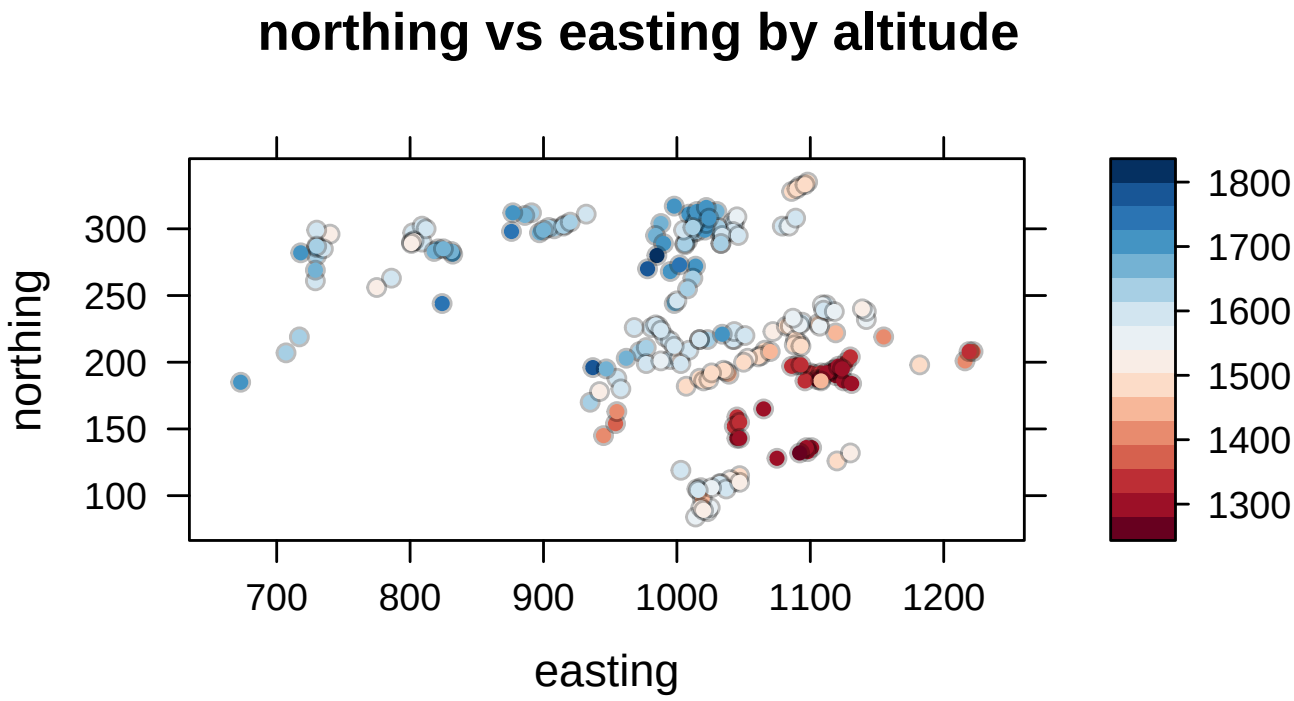
Set x and y variables

```
> spec$yvar <- "northing"
> spec$xvar <- "easting"
levelplot(altitude ~ easting * northing, dat....
```



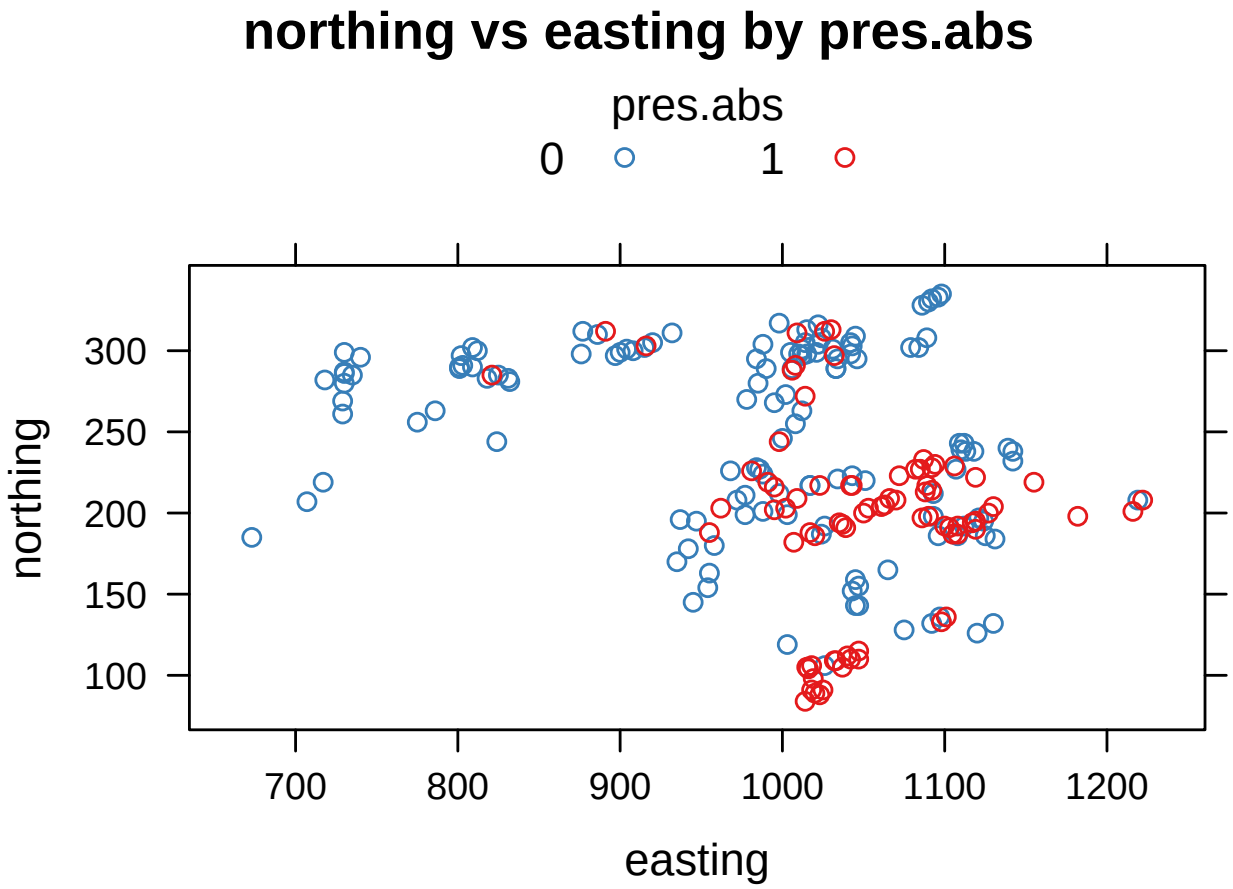
Isometric scale, remove lines

```
> spec$aspect <- "iso"
> spec$doLines <- FALSE
levelplot(altitude ~ easting * northing, dat....
```



Set grouping variable

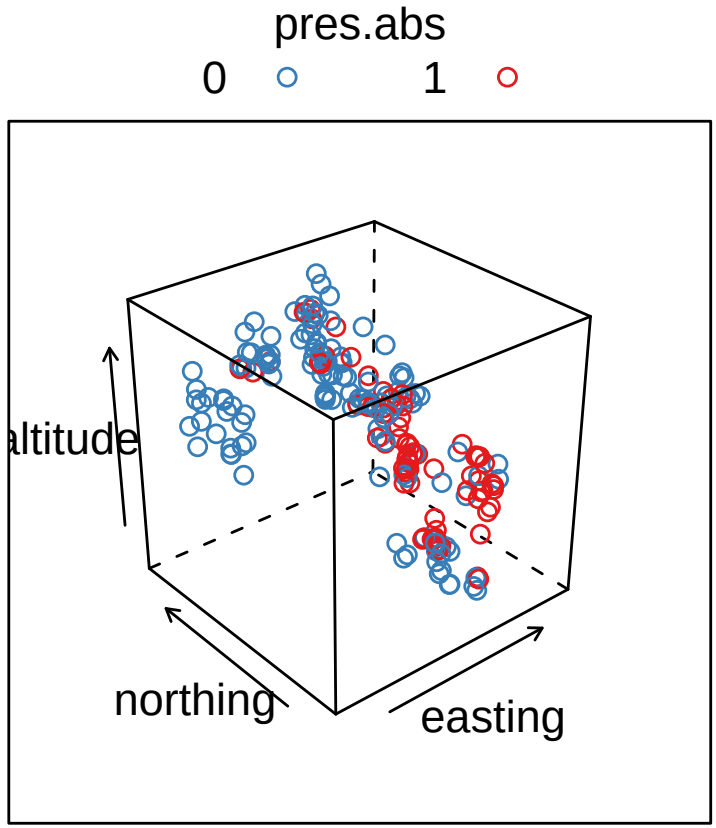
```
> spec$groups <- "pres.abs"
xyplot(northing ~ easting, data = frogs, gro....
```



Set z variable

```
> spec$zvar <- "altitude"

cloud(altitude ~ easting * northing, data = ....
```



Details

The results in this document were obtained using R 2.8.0 with the packages **latticist** 0.9–41, **lattice** 0.17–15, and **latticeExtra** 0.5–4. R itself and all packages used are available from CRAN at `http://CRAN.R-project.org/`.

For an excellent introduction to and coverage of Lattice:

> Sarkar, Deepayan (2008). *Lattice: Multivariate Data Visualization with R*, Springer. `http://lmdvr.r-forge.r-project.org/`.