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Example datasets

Collection of datasets used during the class for exercise

0. Data for import

- Description: coordinates for the [plot of a pig](#)
- [data-for-import.xlsx](#)
- [data-for-import.rdata](#)

1. Temperature measurements

- [Description](#)
- [temperatures.xls](#) - Excel file (*.xls format)
- [temperatures.txt](#) - plain text file, separated by tabulators (*.txt format)

2. Vltava river valley measurements

- [Description](#)
- [vltava.xlsx](#) - Excel file (*.xlsx format)

3. Communities of molluscs on spring fens of West Carpathian Mountains, Europe

- [Description](#)
- Direct import into R:

```
moll <- read.delim  
( 'http://www.davidzeleny.net/wiki/lib/exe/fetch.php/recol:data:molluscs-fens  
.txt', row.names = 1)  
env <- read.delim  
( 'http://www.davidzeleny.net/wiki/lib/exe/fetch.php/recol:data:env-fens.txt'  
, row.names = 1)
```

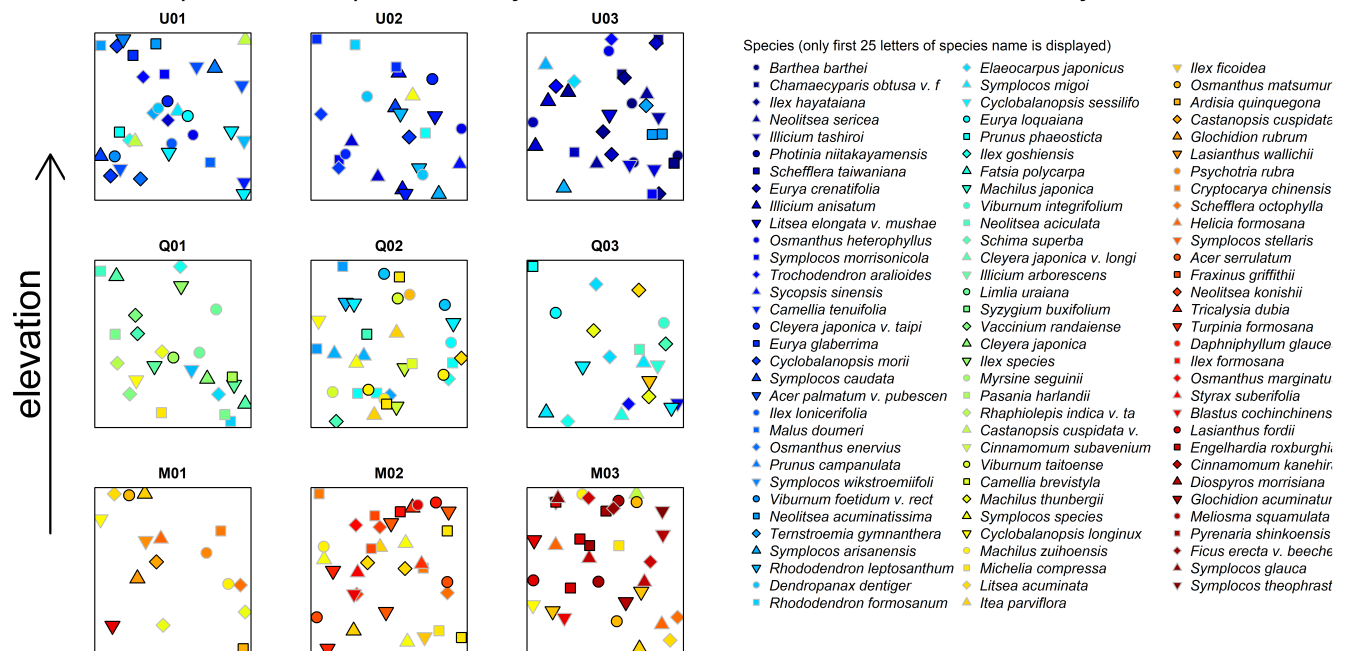
4. Latin names

```
x <- c('Chamaecyparis formosensis', 'Abies kawakamii', 'Picea  
morrisonicola')
```

5. Changes of plant functional traits along elevation in Taiwan

```
traits <- readr::read_delim
('https://www.davidzeleny.net/wiki/lib/exe/fetch.php/recol:data:traits_mqu.txt', delim = '\t')
localities <- readr::read_delim
('https://www.davidzeleny.net/wiki/lib/exe/fetch.php/recol:data:localities_mqu.txt', delim = '\t')
```

Dataset: At nine forest localities distributed along elevation in Northern part of Taiwan, we established vegetation plots (20×20 m) and in each plot we selected several dominant tree species. For each individual of selected species, we collected three leaves, and measured several leaf functional traits (SLA, LA, LDMC and thickness). The average of each trait for given tree individual (mean of three measured leaves) is in the table 'traits'. Note that at each locality, there are several species, and some of the species are represented by more than one individual (some have only one individual).



6. Papers published in Journal of Vegetation Science (1990-2016)

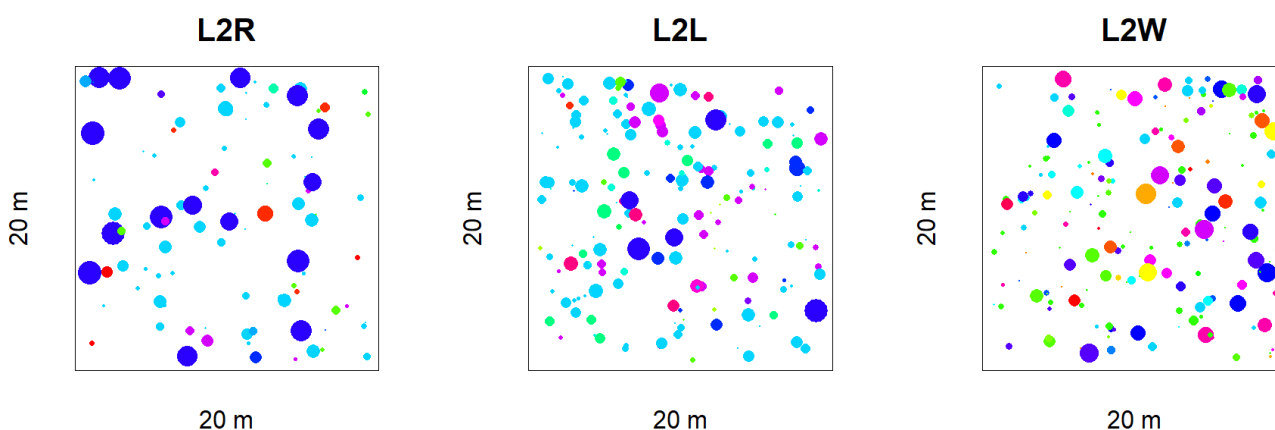
Data downloaded from www.scopus.com and stored in Gist of Github.com.

```
jvs <- readr::read_delim
('https://gist.githubusercontent.com/zdealveindy/570edaff4e8e776e02d4277980b
ad842/raw/182132abfbb1042ae4d515dae5d762b00510c59d/scopus-
jvs-1990-2016.txt', delim = '\t')
```

7. Tree census on three plots sampled in cloud forest (Tamanshan, Taiwan)

Data sampled by [Vegetation Ecology lab](#). Three plots 20×20 m sampled in elevation around 1850 m in Tamanshan. In each plot, we measured DBH (diameter in breast height) of each tree individual with DBH > 1 cm, and determine it's species. Some individuals have more than one stem - in that case we measured each stem separately and in the record the same individual number occurs on multiple rows, each with different DBH measure. Plot codes are L2R, L2L and L2W. The figure below illustrates the situation (each box = one plot 20×20 m, each point = one tree individual, size of the symbol = proportional to individual's DBH, different color = different species; spatial distribution does not reflect the reality. The script creating figure is [here](#)).

```
tamanshan <- readr::read_delim
('https://gist.githubusercontent.com/zdealveindy/901dc3b30997a2378e5421aa139
0c926/raw/50480004df7d774a62e51b2afed0b0104df0988a/tamanshan_tree_census.txt
', delim = '\t')
```



8. Long data

From [Manipulating big data in R for vegetation scientists](#) (Viktoria Wagner) Chapter 7.2

```
plot.vec <- c("P1", "P2", "P3", "P4", "P5", "P6", "P7", "P8",
             "P9", "P10", "P1", "P2", "P3", "P4", "P5", "P6",
             "P7", "P8", "P9", "P10", "P1", "P2", "P3", "P4",
             "P5", "P6", "P7", "P8", "P9", "P10", "P1", "P2",
             "P3", "P4", "P5", "P6", "P7", "P8", "P9", "P10")
lat.vec <- c(-25.628, 22.504, -3.515, 1.400, -11.661, 16.936, -2.787,
            -11.767,
            10.209, -5.747, -25.628, 22.504, -3.515, 1.400, -11.661,
            16.936,
            -2.787, 2-11.767, 10.209, -5.747, -25.628, 22.504, -3.515,
            1.400,
            -11.661, 16.936, -2.787, -11.767, 10.209, -5.747, -25.628,
            22.504,
```

```

-3.515, 1.400, -11.661, 16.936, -2.787, -11.767, 10.209, -5.747)
long.vec <- c(27.501, -21.998, -48.671, 17.081, 7.165, -0.839, -6.539,
-0.644,
           17.802, NA, -27.501, -21.998, -48.671, 17.081, 7.165, -0.839,
-6.539,
           -0.644, 17.802, NA, -27.501, -21.998, -48.671, 17.081, 7.165,
-0.839,
           -6.539, -0.644, 17.802, NA, -27.501, -21.998, -48.671, 17.081,
7.165,
           -0.839, -6.539, -0.644, 17.802, NA)
spec.vec <- c("spec1", "spec1", "spec1", "spec1", "spec1", "spec1", "spec1",
"spec1",
           "spec1", "spec1", "spec1", "spec2", "spec2", "spec2",
"spec2",
           "spec2", "spec2", "spec2", "spec2", "spec2", "spec2", "spec2", "spec3",
"spec3", "spec3", "spec3", "spec3", "spec3", "spec3", "spec3", "spec3",
"spec3", "spec3", "spec4", "spec4", "spec4", "spec4", "spec4", "spec4",
"spec4", "spec4", "spec4", "spec4", "spec4")
abund.vec <- c(20, 5, 20, 1, 0, 0, 0, 20, 5, 10, 0, 0, 40, 1, 0, 0, 0, 5, 0,
5,
           10, 50, 0, 5, 10, 0, 1, 0, 5, 10, 5, 0, 10, 10, 30, 5, 0, 0,
50, 30)
long.data <- data.frame(plot = plot.vec,
                        lat = lat.vec,
                        long = long.vec,
                        spec = spec.vec,
                        abund = abund.vec)

```

9. Wide data

From [Manipulating big data in R for vegetation scientists](#) (Viktoria Wagner) Chapter 7.1

```

lat.vec.w <- c(-25.628, 22.504, -3.515,
              1.400, -11.661, 16.936,
              -2.787, -11.767, 10.209,
              -5.747)
long.vec.w <- c(-27.501, -21.998, -48.671,
               17.081, 7.165, -0.839, -6.539, -0.644,
               17.802, NA)
wide.data <- data.frame(plot = c(paste("P", 1:10, sep="")),
                       spec1 = c(20, 5, 20, 1, 0, 0, 0, 20, 5, 10),
                       spec2 = c(0, 0, 40, 1, 0, 0, 0, 5, 0, 5),
                       spec3 = c(10, 50, 0, 5, 10, 0, 1, 0, 5, 10),
                       spec4 = c(5, 0, 10, 10, 30, 5, 0, 0, 50, 30),
                       lat = lat.vec.w,
                       long = long.vec.w)

```