

R Tutorial

Computing with and plotting of data tables

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1 Exercises

Section 1

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Use of the `plot` function using terrestrial ecology data:

- 1 In Chapter 16 of Zuur et al. (2009), a study is presented analysing numbers of amphibians killed along a road in Portugal using generalised additive mixed modelling techniques. In this exercise, we use the `plot` command to visualise a segment of the data. Open the file `Amphibian_road_Kills.xls`, prepare a spreadsheet, and import the data into R. Download:
<http://highstat.com/Books/Book3/MoreData.zip>
- 2 The variable, `TOT_N`, is the number of dead animals at a sampling site, `OLIVE` is the number of olive groves at a sampling site, and `D_Park` is the distance from each sampling point to the nearby natural park. Create a plot of `TOT_N` versus `D_park`. Use appropriate labels.

Exercises

- 3 Create a new column `olive_factor` with two levels: `high` and `low`. Set this factor to `high` for values in `OLIVE` that are larger than 10 and to `low` for values that are lower or equal to 10.
- 4 Create again a scatter plot of `TOT_N` vs. `D_park`, this time plot points for which factor `olive_factor` is `high` as red triangles and as black dots for which it is `low`. Add appropriate labels and a title
- 5 Change the axis tick labels into kilometers instead of meters. Hint: Read R-documentation about function `plot()` (parameter `xaxt`) and function `axis()`: Type `?plot` and `?axis` into R-console.

Alain Zuur, Elena N Ieno, and Erik Meesters. *A Beginner's Guide to R*.
Springer Science & Business Media, 2009.