Practicals 11: Linear models
Data are available in separate Excel files

1. The number of seedlings per square meter was monitored at 24 grasslands, which were mown once (mown1), mown twice (mown2), or grazed (variable treatment). In addition, biomass production was measured together with the mean annual temperature of each grassland. Build a multiple regression model predicting the effects of grassland parameters on seedling density.

2. Transpiration of plants was recorded together with air humidity, temperature, wind speed, and sunny vs. cloudy weather. On which of these variables does the transpiration rate depend?

3. The effect of watering and fertilizer application on plant growth (measured by biomass production) was tested in the full-factorial manipulative experiment. Perform a two-way analysis of variance and test also the interaction between the two treatments.

4. The effect of physical exercise and diet on body mass was studied in 21 people. In addition to the studied variables, body height, hair color, and sex were also recorded as presumed important covariates. What does the body mass depend on?