

MULTIVAR STATS IN ECOL AND GENETICS — EXERCISES, SHEET 1

---

1. The file `abcdx.txt` contains four factors  $A$ ,  $B$ ,  $C$ ,  $D$  and one numerical variable  $X$ . How does  $X$  depend on the four factors? Take possible interactions between the variables into account.
2. The file `bp.txt` contains simulated blood pressures (bp), treatments, ages, body lengths [cm] and weights [kg] of 40 imaginary patients. How does their blood pressure depend on the other variables? Fit several models to the data and decide which one explains the data best.
3. Got to <http://www.highstat.com/book1.htm> and follow the link “Data and R code for chapter 27”. Ignore the R files in the downloaded folder and analyse the data: How are the different variables correlated, which have a strong influence on the number of species? To explore this, try different ways to visualize the data and fit multivariate linear models.