02424 Week 8

Today you should be working on an exercise, which considers the possibility of having a number of explanatory variables or covariates in a generalized linear model.

Survival of snails

The data set snails.txt contains data from an designed experiment studying the survival of snails. Groups of snails of two types, A and B, were held for periods of 1,2,3 or 4 weeks under controlled conditions. Temperature and humidity were kept at predefined levels. The variables are as follows:

species Snail species, A or B exposure Exposure in weeks (1,2,3 or 4) humidity Relative humidity (four levels)

temp Temperature in degrees of Celsius (three levels)

deaths Number of deaths

n Number of snails exposed

The main goal is to find whether exposure, humidity, temperature or interactions between these have any effects of the survival probability for snails. You might want start the analysis by investigating whether to include, exposure, humidity and temp as factor variables or numeric variables. When a suitable model has been found perform a residual diagnostic on the model.