Exercise with Daphnia Model

The script Test\_Daphnia.R performs inference on the data from the experiment. It uses JAGS and is designed to fit one of the models presented in my talk to a subset of the data. Once the MACROS that define the data you want to analyze and the model you want to fit are selected, you should be able to get all the diagnostic plots and the posterior of the model parameters as well as the predictions of the model. For this exercise, the number of chains and their length is set to a reasonable value that should allow you to have the results in minutes in your laptop.

This is also the first time this code is tested by other users!

To run it please first select the MARCOS according to the following steps:

* Select a specific Daphnia Clone

D1, D2, D3, Ds

* Select a specific treatment

Control, Diazinon, Diuron, Both

* Select a prior configuration: Informative/Uninformative
* Select a specific Model version, by setting the MARCOS associated to Fecundity and Mortality Distributions
* Select a specific Inference Method

Joint fit (J), Replica by Replica fit (R), Hierarchical fit (H)

Run the rest of code: it should take between 5 and 15 minutes to produce an output.

While you wait for the computer to work for you, give a look at the script, and what it does as well as the functions it uses.

When you get the final output, on a pdf or on your terminal, look at it carefully.

How long did it take to run in your cpu?

Do you observe convergence?

What can you say about the model parameters?

Is the model you chose fitting the data well?