Water Relations III: Flooding/inundation

Aim: To investigate the impact of flooding on egg development of *W. virgo*

Hypothesis:

Duration of inundation does not affect egg development but inundation decreases viability

Duration of inundation does not affect egg development and inundation does not affect viability

Duration of inundation affects egg development and inundation decreases viability

Treatment:

Days spent inundated: 0 (control), 3 and 7 (flash flood) & 14 (basin flooding)

Response:

initial egg mass

final egg mass

nymph mass

second instar mass

time to develop

time to hatch

time to second instar

egg survival

nymph survival

Methods:

Eggs incubated at 30C as usual.

PCR Tube filled with water

Analysis:

General linear models

**Data analysis 12/8/16**

Sample sizes

table(data$population)

 Nowingi South Broken Hill South Ita Sandhills

 32 40 48

table(data$initial.survivorship,data$population)

 Nowingi South Broken Hill South Ita Sandhills

 0 15 21 21

 1 17 19 27

table(data$sand,data$population)

 Nowingi South Broken Hill South Ita Sandhills

 0 23 28 32

 1 9 12 15

table(data$hatch,data$population)

 Nowingi South Broken Hill South Ita Sandhills

 0 25 31 41

 1 7 9 7

table(data$moult,data$population)

 Nowingi South Broken Hill South Ita Sandhills

 0 32 40 48

> table(data$jump,data$population)

 Nowingi South Broken Hill South Ita Sandhills

 0 25 33 42

 1 7 7 6