Biomass by Nest Size

Ruth Sharpe

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Biomass per capita calculated as insect biomass over total number of adult females

Checking AICs of two models

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Biomass per adult female =  nest size + (1|ColonyID) + (1|Date)

AIC: 72.30014

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Biomass per adult female =  nest size + nest size squared +  (1|ColonyID) + (1|Date)

AIC: 74.18827
```

Testing full against reduced model

Model without square value has the lowest AIC

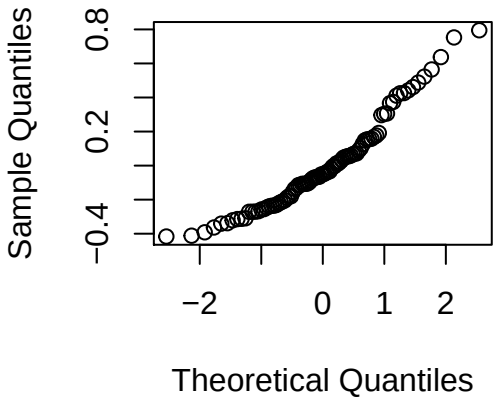
Table 1: Lowest AIC model Against Reduced Model p < 0.05 SIGNIFICANT *

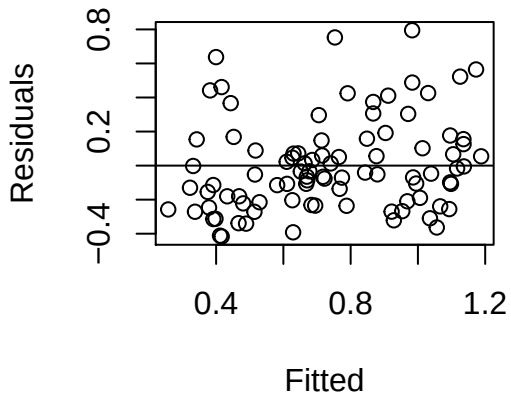
	Df	AIC	BIC	logLik	deviance	Chisq	Chi Df	Pr(>Chisq)
..1	4	76.162	86.205	-34.081	68.162			
object	5	72.300	84.854	-31.150	62.300	5.862	1	0.015

Full: log10AdFm + (1 | ColonyID) + (1 | Date) vs. Reduced: (1 | ColonyID) + (1 | Date)

Checking full model fit

```
BiomsPerAdFm = log0AdFm + ColonyID + Date
```





Graph of biomass against nest size