Cond vs Nest Size Stepwise model regression

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Run on 23 August, 2017 at 2017-08-23 17:31:15

Model Reduction

[1] “number of terms” [1] 5 [1] “pvalue” [1] 1

	Sum Sq	Mean Sq	NumDF	DenDF	F.value	p_value
logCtFm	0.00	0.00	1	30.83	0.07	0.788
InstarNumber	0.00	0.00	1	1265.35	0.00	0.958 RMVD
I(logCtFm^2)	0.00	0.00	1	23.40	0.05	0.819
InstarNumber:InstarSex	0.02	0.02	1	1255.44	1.97	0.161
logCtFm:InstarNumber	0.00	0.00	1	1266.84	0.37	0.545
logCtFm:InstarNumber:InstarSex	0.02	0.02	1	1254.44	2.32	0.128

[1] “i = 1” [1] “term with highest p value is: I(logCtFm^2)” [1] “number of terms” [1] 6 [1] “pvalue” [1] 0.8190608

	Sum Sq	Mean Sq	NumDF	DenDF	F.value	p_value
logCtFm	0.00	0.00	1	263.83	0.03	0.862
InstarNumber	0.00	0.00	1	1252.59	0.01	0.938 RMVD
InstarNumber:InstarSex	0.02	0.02	1	1256.03	1.98	0.160
logCtFm:InstarNumber	0.00	0.00	1	1259.96	0.40	0.528
logCtFm:InstarNumber:InstarSex	0.03	0.03	1	1254.91	2.33	0.127

[1] “i = 1” [1] “i = 2” [1] “term with highest p value is: InstarNumber:InstarSex” [1] “number of terms” [1] 5 [1] “pvalue” [1] 0.1596441

	Sum Sq	Mean Sq	NumDF	DenDF	F.value	p_value
logCtFm	0.00	0.00	1	262.63	0.02	0.894 RMVD
InstarNumber	0.00	0.00	1	1238.96	0.25	0.617
logCtFm:InstarNumber	0.01	0.01	1	1251.53	1.13	0.288
logCtFm:InstarNumber:InstarSex	0.01	0.01	1	1252.31	0.48	0.488

[1] “i = 1” [1] “i = 2” [1] “term with highest p value is: logCtFm:InstarNumber:InstarSex” [1] “number of terms” [1] 4 [1] “pvalue” [1] 0.4882743

	Sum Sq	Mean Sq	NumDF	DenDF	F.value	p_value
logCtFm	0.00	0.00	1	262.60	0.02	0.892 RMVD
InstarNumber	0.00	0.00	1	1238.86	0.24	0.622
logCtFm:InstarNumber	0.01	0.01	1	1251.75	1.21	0.272

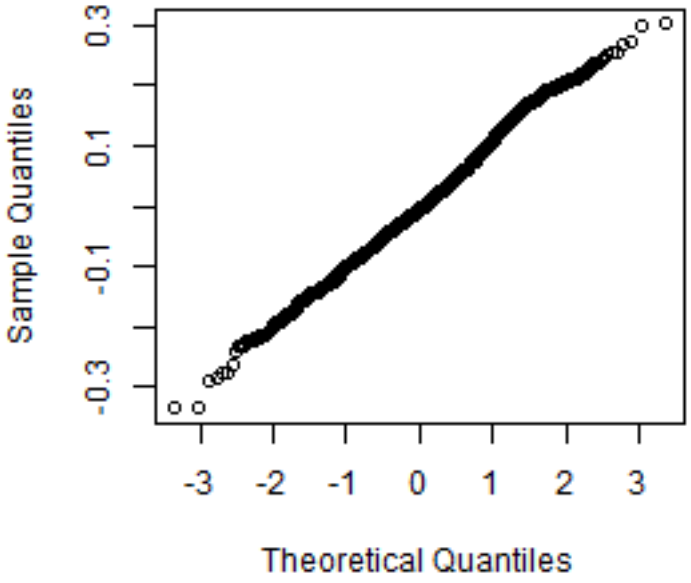
[1] “i = 1” [1] “i = 2” [1] “term with highest p value is: logCtFm:InstarNumber”

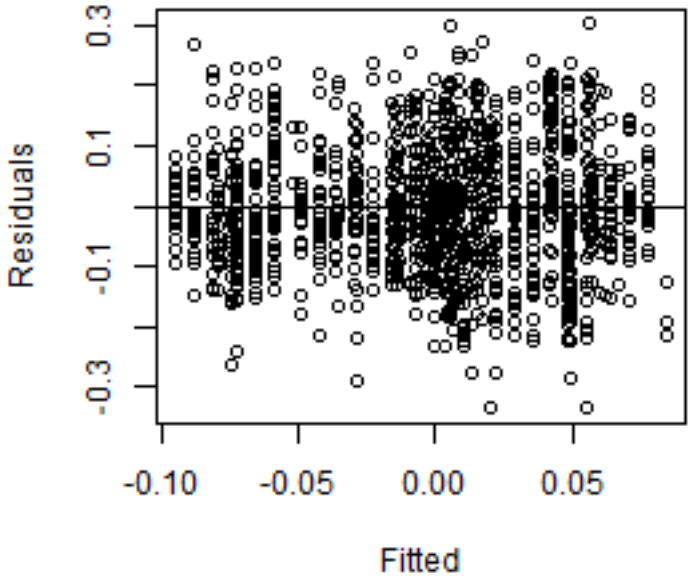
Final Model is: condResiduals ~ logCtFm + InstarNumber + 1 | NestID

	Sum Sq	Mean Sq	NumDF	DenDF	F.value	Pr(>F)
logCtFm	0.06	0.06	1.00	21.42	5.13	0.0340
InstarNumber	0.06	0.06	1.00	1265.29	5.83	0.0159

Checking full model fit

```
Condition=log(ColonySize) + InstarAge + InstarAge:InstarSex + log(ColonySize):InstarAge + log(ColonySize):Instar
```





Graph with full model superimposed

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Model:
condResiduals ~ logCtFm + InstarNumber + InstarNumber:InstarSex + logCtFm:InstarNumber + logCtFm:InstarNumber:In
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Note: If line on graph is blue R could not plot the lmer, plotting a simple lm instead[1] "lmer"
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Warning: Removed 1 rows containing missing values (geom_point).
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Warning: Removed 1 rows containing missing values (geom_point).
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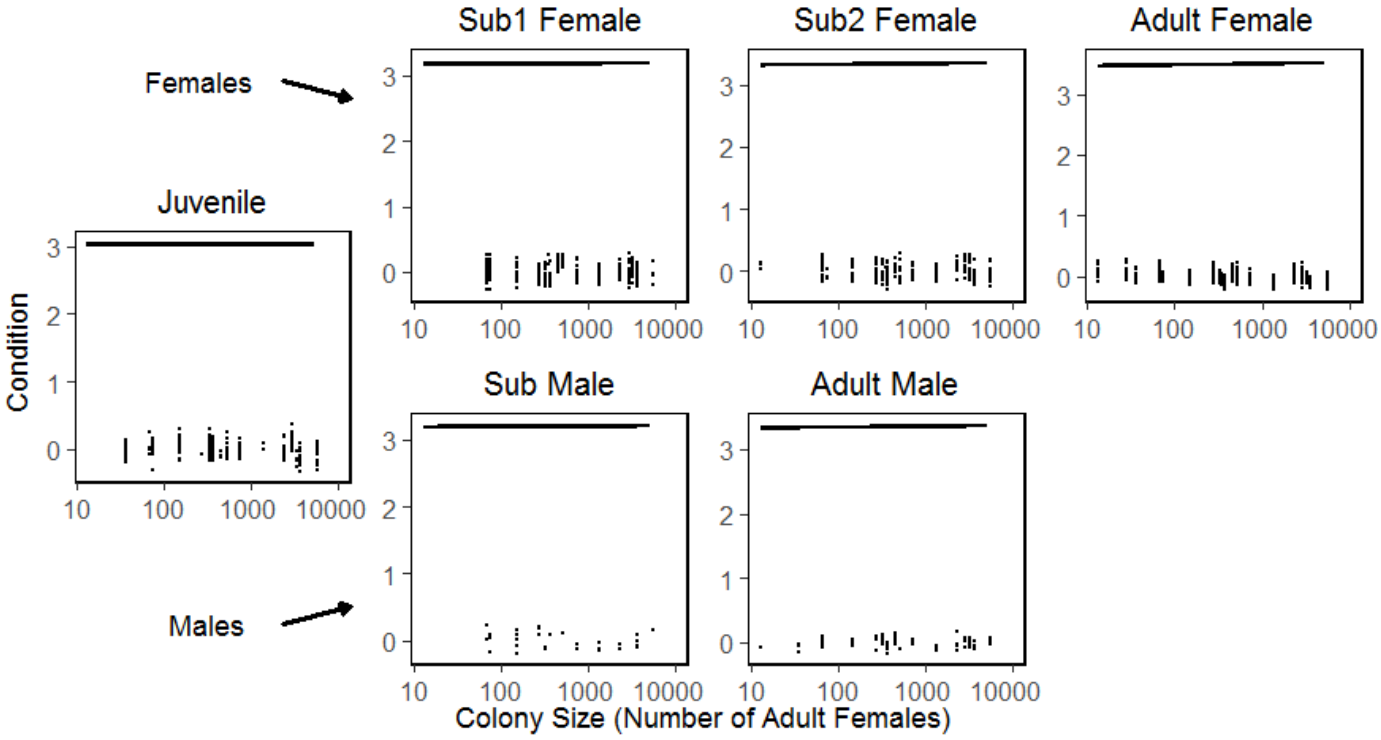

Figure 1: plot of chunk Graph