Variance in Leg vs Nest Size Instar As Number

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AIC Values of all possible models with instar included and sample size as weight

Mean of untransformed within-colony leg variance is 0.0863835 and standard error is 0.0207265.

	Chisq	Df	p_value
logCtFm	0.31	1.00	0.577
InstarNumber	1.22	1.00	0.270
I(InstarNumber^2)	0.60	1.00	0.437
InstarNumber:InstarSex	0.10	1.00	0.755 RMVD
logCtFm:InstarNumber	2.21	1.00	0.137
InstarSex:I(InstarNumber^2)	0.19	1.00	0.666
logCtFm:I(InstarNumber^2)	2.95	1.00	0.086.
logCtFm:InstarNumber:InstarSex	0.59	1.00	0.443
logCtFm:InstarSex:I(InstarNumber^2)	0.80	1.00	0.371

[1] "term with highest p value is: InstarNumber:InstarSex"

	Chisq	Df	p_value
logCtFm	0.19	1.00	0.662
InstarNumber	1.53	1.00	0.217
I(InstarNumber^2)	0.89	1.00	0.345
logCtFm:InstarNumber	2.27	1.00	0.131
InstarSex:I(InstarNumber^2)	2.11	1.00	0.146
logCtFm:I(InstarNumber^2)	4.66	1.00	0.031*
logCtFm:InstarNumber:InstarSex	0.02	1.00	0.878 RMVD
logCtFm:InstarSex:I(InstarNumber^2)	0.06	1.00	0.802

[1] "term with highest p value is: logCtFm:InstarNumber:InstarSex"

	Chisq	Df	p_value
logCtFm	0.18	1.00	0.673 RMVD
InstarNumber	1.51	1.00	0.219
I(InstarNumber^2)	2.36	1.00	0.124
logCtFm:InstarNumber	2.27	1.00	0.132
InstarSex:I(InstarNumber^2)	3.45	1.00	0.063.
logCtFm:I(InstarNumber^2)	6.29	1.00	0.012*
logCtFm:InstarSex:I(InstarNumber^2)	1.39	1.00	0.238

[1] "term with highest p value is: logCtFm"

	Chisq	Df	p_value
InstarNumber	2.10	1.00	0.147
I(InstarNumber^2)	0.38	1.00	0.540 RMVD
logCtFm:InstarNumber	6.12	1.00	0.013*
InstarSex:I(InstarNumber^2)	1.68	1.00	0.195
logCtFm:I(InstarNumber^2)	9.68	1.00	0.002**
logCtFm:InstarSex:I(InstarNumber^2)	2.58	1.00	0.108

[1] "term with highest p value is: I(InstarNumber^2)"

	Chisq	Df	p_value
InstarNumber	2.10	1.00	0.147 RMVD
logCtFm:InstarNumber	6.12	1.00	0.013*
InstarSex:I(InstarNumber^2)	9.49	2.00	0.009**
logCtFm:I(InstarNumber^2)	9.68	1.00	0.002**
logCtFm:InstarSex:I(InstarNumber^2)	2.58	1.00	0.108

[1] "term with highest p value is: InstarNumber"

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Warning: glm.fit: algorithm did not converge
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	Chisq	Df	p_value
logCtFm:InstarNumber	6.71	1.00	0.010**
InstarSex:I(InstarNumber^2)	4.20	2.00	0.123 RMVD
logCtFm:I(InstarNumber^2)	5.44	1.00	0.020*
logCtFm:InstarSex:I(InstarNumber^2)	5.77	1.00	0.016*

[1] "term with highest p value is: InstarSex:I(InstarNumber^2)"

	Chisq	Df	p_value
logCtFm:InstarNumber	0.27	1.00	0.602
logCtFm:I(InstarNumber^2)	0.13	1.00	0.716 RMVD
logCtFm:InstarSex:I(InstarNumber^2)	1.81	1.00	0.179

[1] "term with highest p value is: logCtFm:I(InstarNumber^2)"

	Chisq	Df	p_value
logCtFm:InstarNumber	0.27	1.00	0.602 RMVD
logCtFm:InstarSex:I(InstarNumber^2)	1.94	2.00	0.379

[1] "term with highest p value is: logCtFm:InstarNumber"

Graphs

Leg Variance against nest size

note: blue line just lm model

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Note: If line on graph is blue R could not plot the lmer, plotting a simple lm instead[1] "no model selected"
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Warning: Removed 1 rows containing missing values (geom_smooth).
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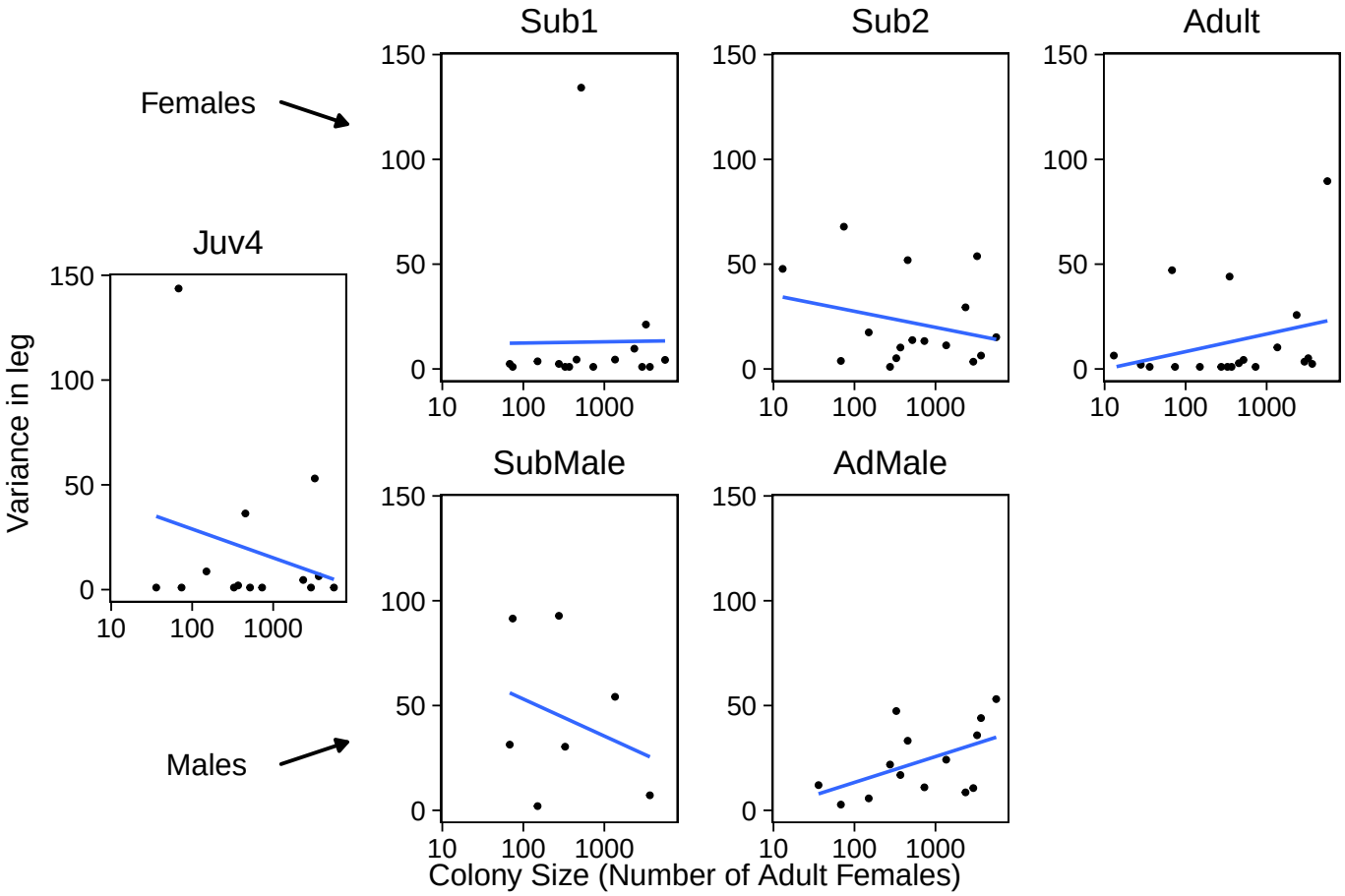
Sub1
Sub2
Adult
Females
Juv4
Variance in leg
150
100
50
0
10
100
1000
SubMale
AdMale
Males
Colony Size (Number of Adult Females)

Graph of leg variance against instar