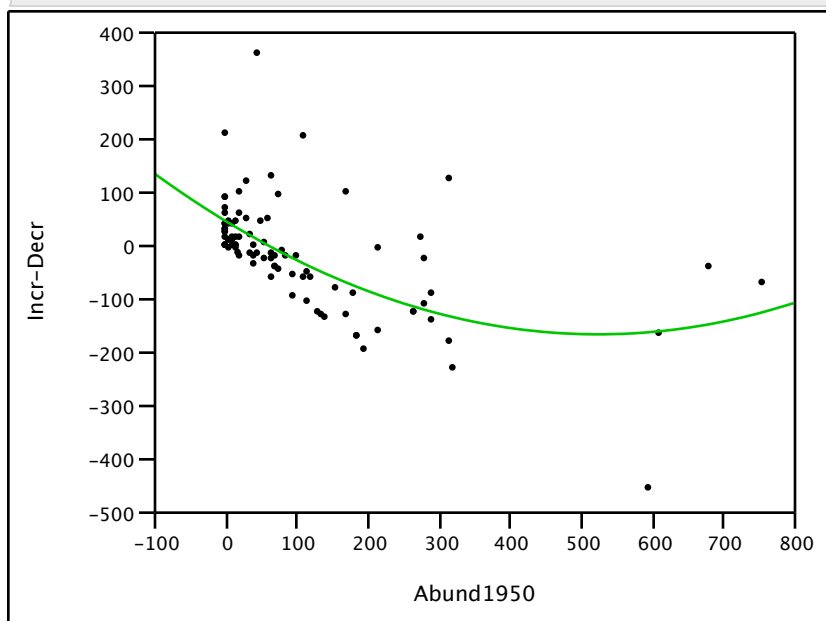


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Data Table=DryPrairieData

Bivariate Fit of Incr-Decr By Abund1950

Linear Fit

Polynomial Fit Degree=2

Linear Fit

Incr-Decr = 23.591233 - 0.3719679 Abund1950

Summary of Fit

RSquare	0.293974
RSquare Adj	0.286129
Root Mean Square Error	86.96218
Mean of Response	-17.0543
Observations (or Sum Wgts)	92

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	283394.78	283395	37.4741
Error	90	680617.95	7562	Prob > F
C. Total	91	964012.73		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	23.591233	11.23769	2.10	0.0386*
Abund1950	-0.371968	0.060763	-6.12	<.0001*

Bivariate Fit of Incr-Decr By Abund1950

Polynomial Fit Degree=2

Incr-Decr = 36.055611 - 0.6437449 Abund1950 + 0.0007741 (Abund1950-109.272)^2

Summary of Fit

RSquare	0.366242
RSquare Adj	0.352001
Root Mean Square Error	82.85294
Mean of Response	-17.0543
Observations (or Sum Wgts)	92

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	353062.41	176531	25.7161
Error	89	610950.32	6865	Prob > F
C. Total	91	964012.73		<.0001*

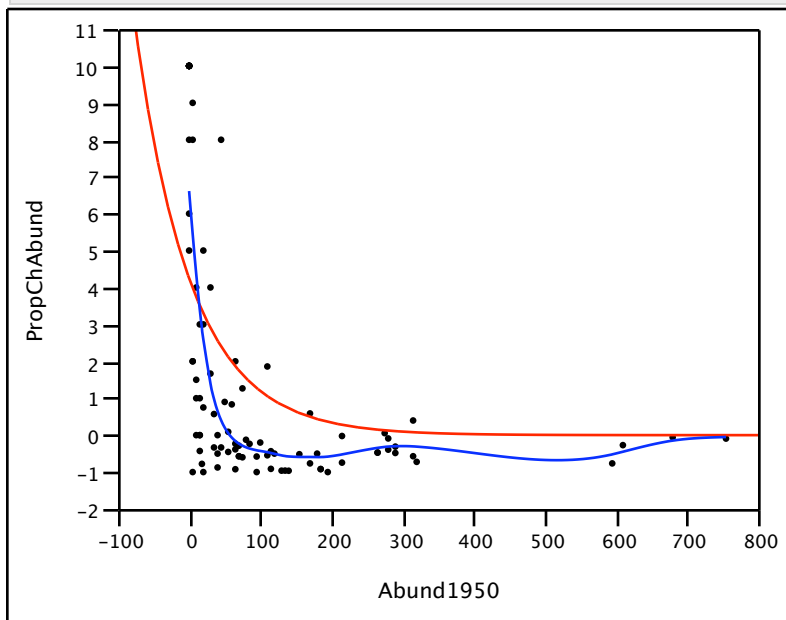
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	36.055611	11.39917	3.16	0.0021*
Abund1950	-0.643745	0.103099	-6.24	<.0001*
(Abund1950-109.272)^2	0.0007741	0.000243	3.19	0.0020*

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Data Table=DryPrairieData

Bivariate Fit of PropChAbund By Abund1950



— Transformed Fit Log
 — Smoothing Spline Fit, lambda=1000
 — Smoothing Spline Fit, lambda=100000

Bivariate Fit of PropChAbund By Abund1950**Transformed Fit Log**

$\text{Log}(\text{PropChAbund}) = 1.4459405 - 0.012649 \text{ Abund1950}$

Summary of Fit

RSquare	0.454863
RSquare Adj	0.439287
Root Mean Square Error	1.005955
Mean of Response	0.948526
Observations (or Sum Wgts)	37

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	29.552863	29.5529	29.2040
Error	35	35.418115	1.0119	Prob > F
C. Total	36	64.970978		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.4459405	0.189267	7.64	<.0001*
Abund1950	-0.012649	0.002341	-5.40	<.0001*

Fit Measured on Original Scale

Sum of Squared Error	692.69624
Root Mean Square Error	4.4487438
RSquare	0.3813558
Sum of Residuals	-42.47425

Smoothing Spline Fit, lambda=100000

R-Square	0.641487
Sum of Squares Error	401.4269

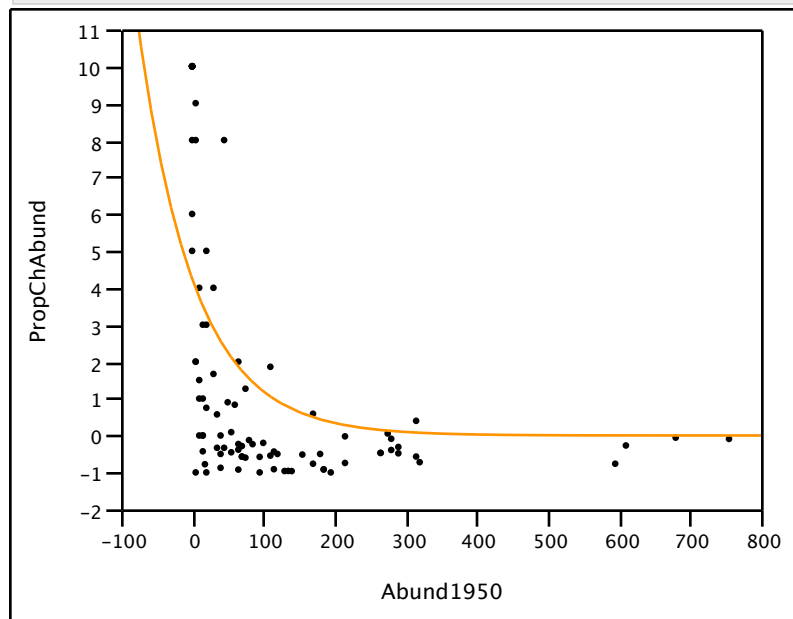
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Data Table=DryPrairieData

Fit Y by X Group

Fit Y by X Group

Bivariate Fit of PropChAbund By Abund1950



Transformed Fit to Exp
 Transformed Fit Log to Log
 Transformed Fit Sqrt
 Transformed Fit Log
 Transformed Fit Reciprocal
 Transformed Fit to Log

Transformed Fit Log

$\text{Log}(\text{PropChAbund}) = 1.4459405 - 0.012649 \text{ Abund1950}$

Summary of Fit

RSquare 0.454863
 RSquare Adj 0.439287
 Root Mean Square Error 1.005955
 Mean of Response 0.948526
 Observations (or Sum Wgts) 37

Analysis of Variance

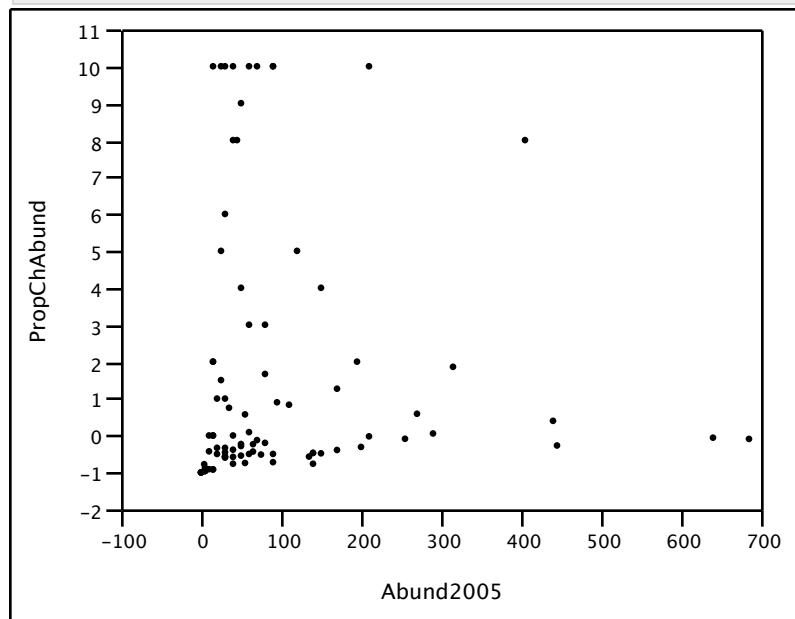
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	29.552863	29.5529	29.2040
Error	35	35.418115	1.0119	Prob > F
C. Total	36	64.970978		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.4459405	0.189267	7.64	<.0001*
Abund1950	-0.012649	0.002341	-5.40	<.0001*

Fit Measured on Original Scale

Sum of Squared Error 692.69624
 Root Mean Square Error 4.4487438
 RSquare 0.3813558
 Sum of Residuals -42.47425

Fit Y by X Group**Bivariate Fit of PropChAbund By Abund2005**

Transformed Fit Log

Linear Fit

Polynomial Fit Degree=3

Transformed Fit to Log

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Data Table=DryPrairieData

Response PropChAbund**Whole Model****Summary of Fit**

RSquare	0.095996
RSquare Adj	0.06409
Root Mean Square Error	3.450854
Mean of Response	1.625892
Observations (or Sum Wgts)	89

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	107.4869	35.8290	3.0087
Error	85	1012.2136	11.9084	Prob > F
C. Total	88	1119.7005		0.0347*

Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Life Form	3	3	107.48686	3.0087	0.0347*

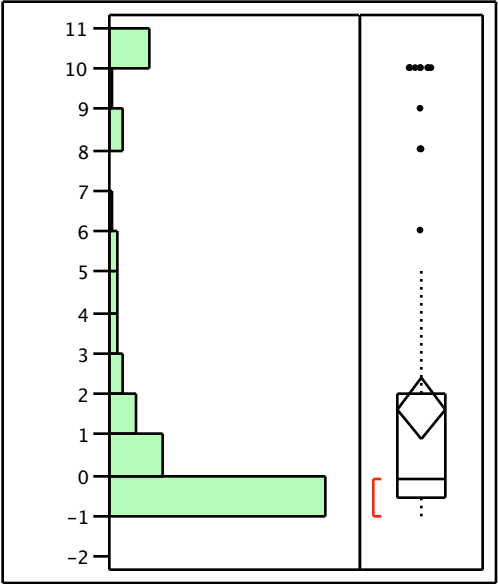
Life Form**Least Squares Means Table**

Level	Least Sq Mean	Std Error	Mean
b	1.2711586	0.7916803	1.27116
f	1.1637886	0.4696018	1.16379
g	2.2196392	1.2200612	2.21964
w	4.9938393	1.2200612	4.99384

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Data Table=DryPrairieData

Distributions

PropChAbund



Quantiles

100.0%	maximum	10.00
99.5%		10.00
97.5%		10.00
90.0%		10.00
75.0%	quartile	2.00
50.0%	median	-0.0927
25.0%	quartile	-0.56
10.0%		-0.92
2.5%		-1.00
0.5%		-1.00
0.0%	minimum	-1.00

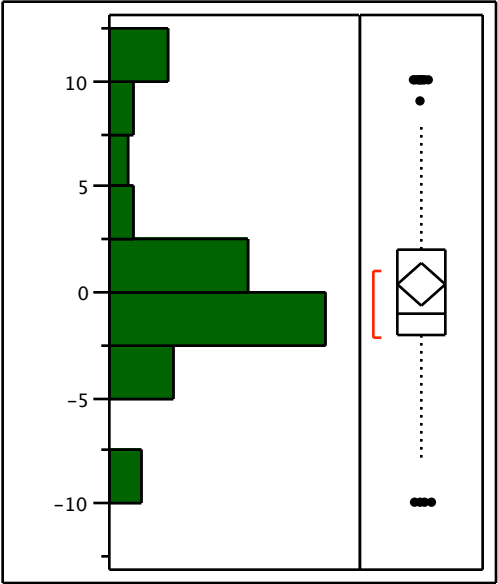
Moments

Mean	1.6258924
Std Dev	3.5670533
Std Err Mean	0.3781069
upper 95% Mean	2.3773004
lower 95% Mean	0.8744844
N	89

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Data Table=DryPrairieData

Distributions

IncrDecr



Quantiles

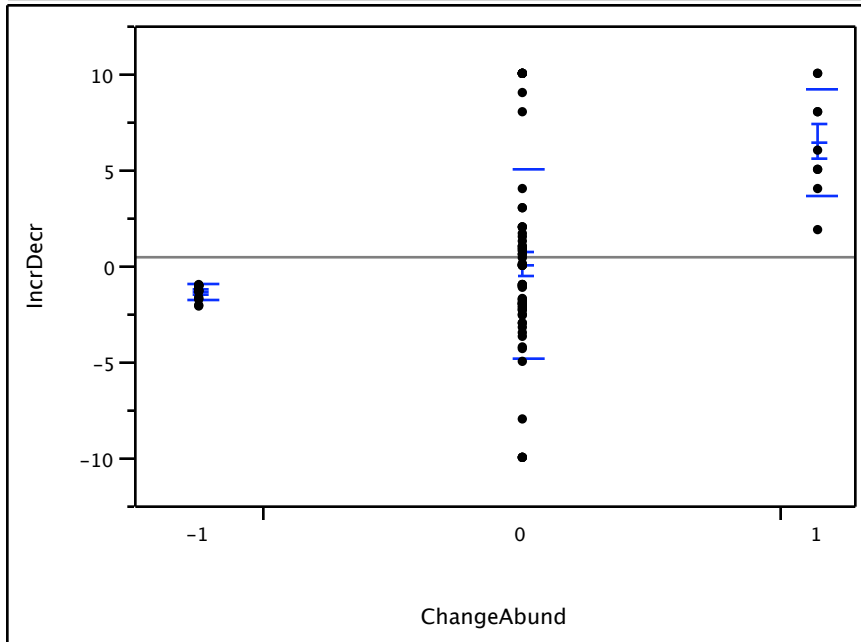
100.0%	maximum	10.00
99.5%		10.00
97.5%		10.00
90.0%		10.00
75.0%	quartile	2.00
50.0%	median	-1.00
25.0%	quartile	-2.00
10.0%		-3.70
2.5%		-10.00
0.5%		-10.00
0.0%	minimum	-10.00

Moments

Mean	0.4216854
Std Dev	4.7655731
Std Err Mean	0.5051497
upper 95% Mean	1.4255643
lower 95% Mean	-0.582194
N	89

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Data Table=DryPrairieData

Oneway Analysis of IncrDecr By ChangeAbund

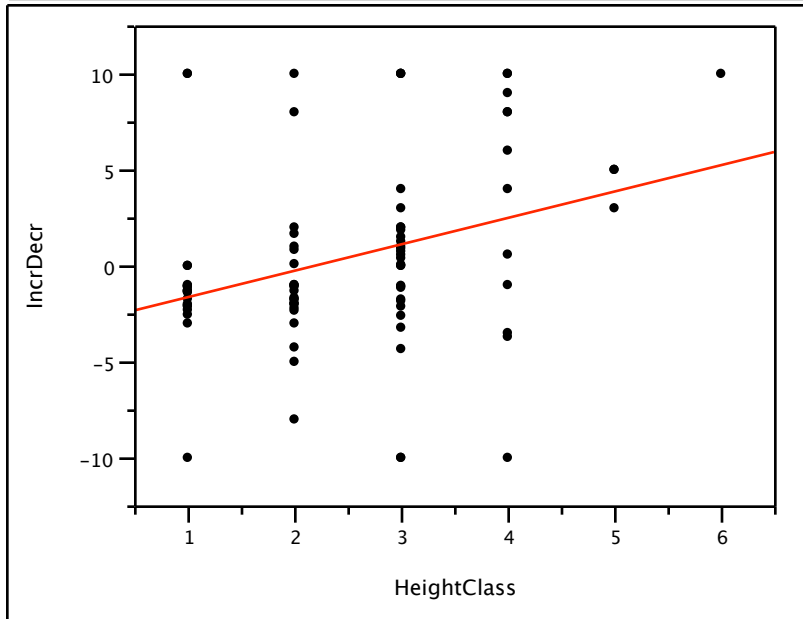
Missing Rows 3

Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
-1	16	-1.3929	0.37026	0.09256	-1.590	-1.196
0	64	0.0306	4.95655	0.61957	-1.208	1.269
1	9	6.4289	2.77228	0.92409	4.298	8.560

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Data Table=DryPrairieData

Bivariate Fit of IncrDecr By HeightClass

— Linear Fit

Linear Fit

$$\text{IncrDecr} = -3.040104 + 1.375443 \text{ HeightClass}$$

Summary of Fit

RSquare	0.11002
RSquare Adj	0.09979
Root Mean Square Error	4.521547
Mean of Response	0.421685
Observations (or Sum Wgts)	89

Analysis of Variance

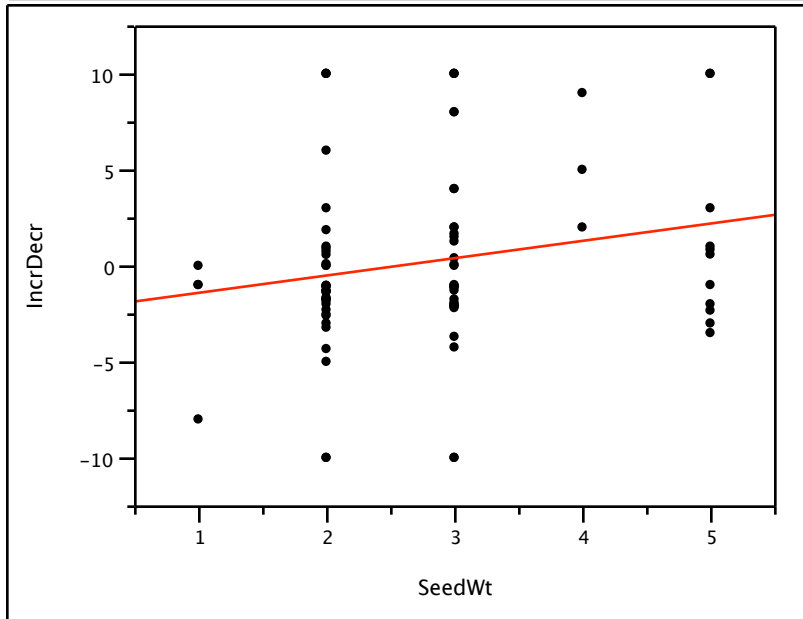
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	219.8790	219.879	10.7550
Error	87	1778.6615	20.444	Prob > F
C. Total	88	1998.5404		0.0015*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-3.040104	1.159304	-2.62	0.0103*
HeightClass	1.375443	0.419409	3.28	0.0015*

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Data Table=DryPrairieData

Bivariate Fit of IncrDecr By SeedWt

— Linear Fit

Linear Fit

$$\text{IncrDecr} = -2.33863 + 0.9023103 \text{ SeedWt}$$

Summary of Fit

RSquare	0.042341
RSquare Adj	0.030941
Root Mean Square Error	4.558778
Mean of Response	0.168953
Observations (or Sum Wgts)	86

Analysis of Variance

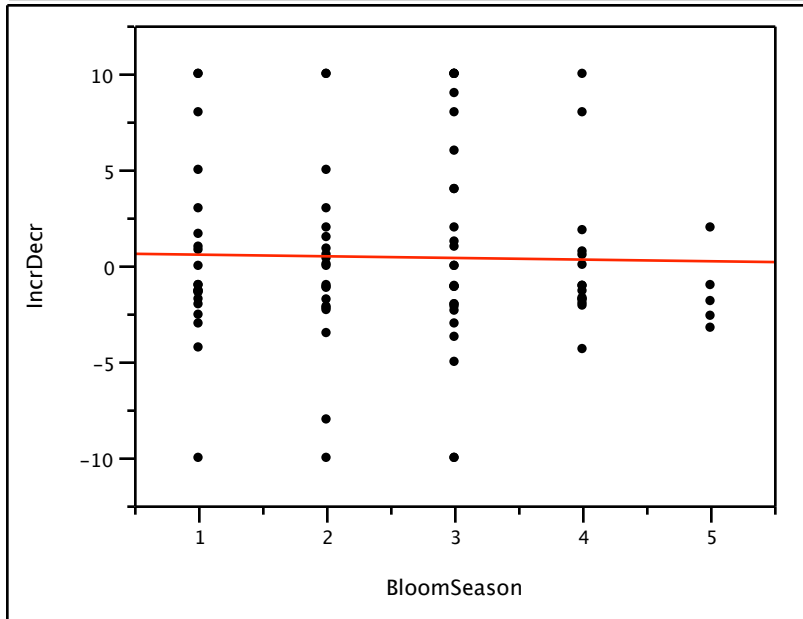
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	77.1846	77.1846	3.7139
Error	84	1745.7268	20.7825	Prob > F
C. Total	85	1822.9114		0.0573

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-2.33863	1.390947	-1.68	0.0964
SeedWt	0.9023103	0.468208	1.93	0.0573

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Data Table=DryPrairieData

Bivariate Fit of IncrDecr By BloomSeason

— Linear Fit

Linear Fit

IncrDecr = 0.6426187 - 0.0858649 BloomSeason

Summary of Fit

RSquare	0.000457
RSquare Adj	-0.01103
Root Mean Square Error	4.791789
Mean of Response	0.421685
Observations (or Sum Wgts)	89

Analysis of Variance

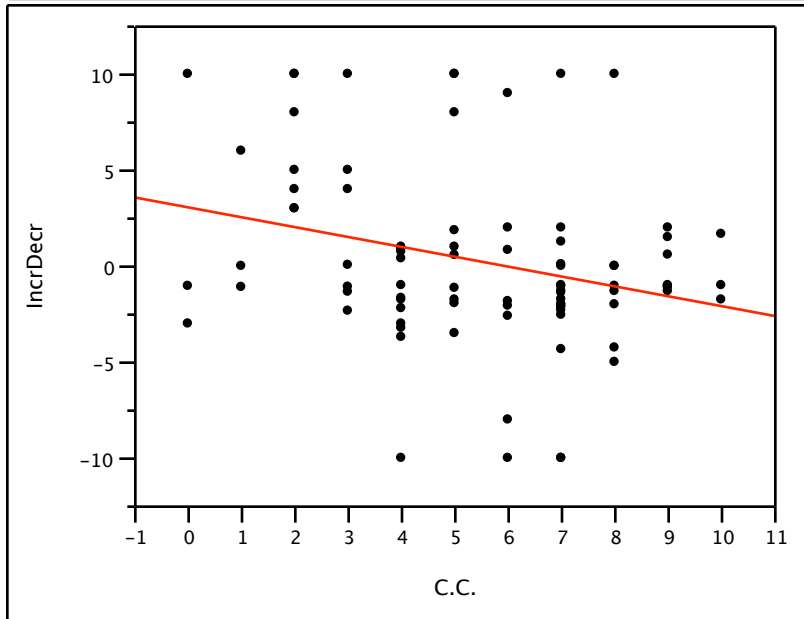
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	0.9126	0.9126	0.0397
Error	87	1997.6279	22.9612	Prob > F
C. Total	88	1998.5404		0.8424

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.6426187	1.219075	0.53	0.5994
BloomSeason	-0.085865	0.430706	-0.20	0.8424

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Data Table=DryPrairieData

Bivariate Fit of IncrDecr By C.C.

— Linear Fit

Linear Fit

IncrDecr = 3.0272276 - 0.5144278 C.C.

Summary of Fit

RSquare	0.079064
RSquare Adj	0.06823
Root Mean Square Error	4.472176
Mean of Response	0.224483
Observations (or Sum Wgts)	87

Analysis of Variance

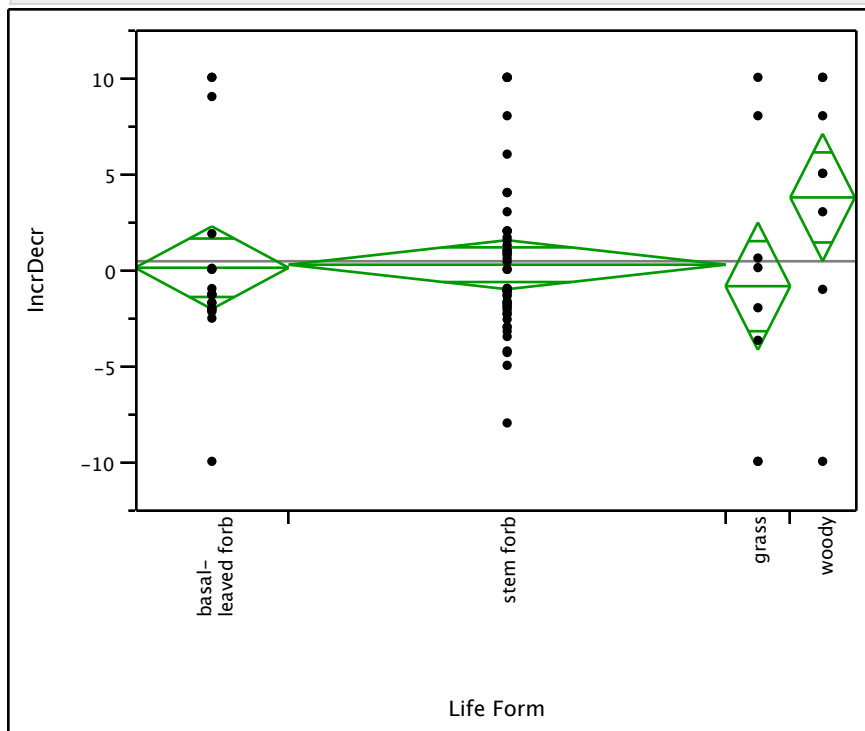
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	145.9513	145.951	7.2974
Error	85	1700.0308	20.000	Prob > F
C. Total	86	1845.9821		0.0083*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	3.0272276	1.142955	2.65	0.0096*
C.C.	-0.514428	0.190432	-2.70	0.0083*

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Data Table=DryPrairieData

Oneway Analysis of IncrDecr By Life Form

Missing Rows 3

Oneway Anova**Summary of Fit**

Rsquare 0.052932
 Adj Rsquare 0.019506
 Root Mean Square Error 4.718866
 Mean of Response 0.421685
 Observations (or Sum Wgts) 89

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Life Form	3	105.7862	35.2621	1.5836	0.1993
Error	85	1892.7543	22.2677		
C. Total	88	1998.5404			

Means for Oneway Anova

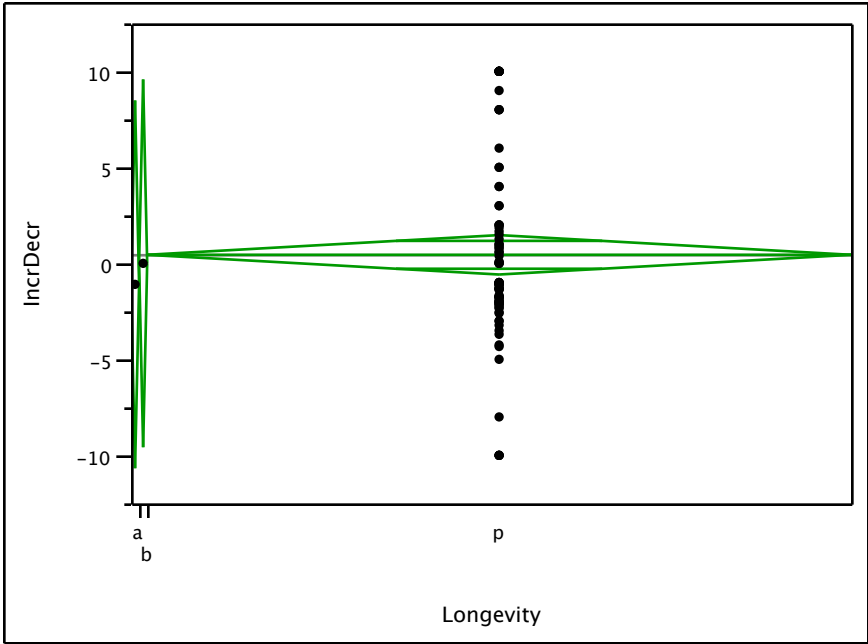
Level	Number	Mean	Std Error	Lower 95%	Upper 95%
basal-leaved forb	19	0.0824	1.0826	-2.070	2.2349
stem forb	54	0.2412	0.6422	-1.036	1.5180
grass	8	-0.8773	1.6684	-4.194	2.4399
woody	8	3.7448	1.6684	0.428	7.0619

Std Error uses a pooled estimate of error variance

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Data Table=DryPrairieData

Oneway Analysis of IncrDecr By Longevity



Missing Rows 3

Oneway Anova

Summary of Fit

Rsquare	0.001262
Adj Rsquare	-0.02196
Root Mean Square Error	4.817626
Mean of Response	0.421685
Observations (or Sum Wgts)	89

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Longevity	2	2.5213	1.2607	0.0543	0.9472
Error	86	1996.0191	23.2095		
C. Total	88	1998.5404			

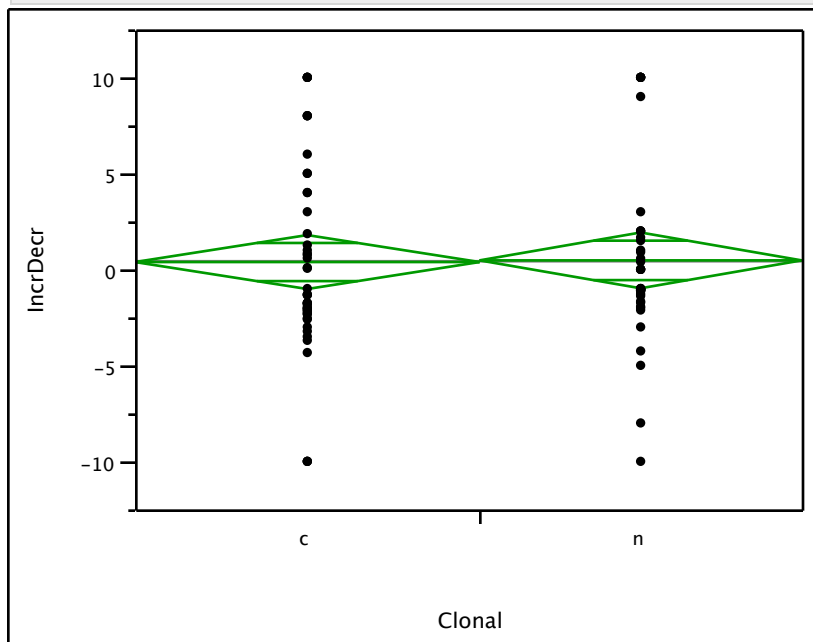
Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
a	1	-1.0950	4.8176	-10.67	8.4821
b	1	0.0000	4.8176	-9.58	9.5771
p	87	0.4440	0.5165	-0.58	1.4707

Std Error uses a pooled estimate of error variance

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Data Table=DryPrairieData

Oneway Analysis of IncrDecr By Clonal

Missing Rows 3

Oneway Anova**Summary of Fit**

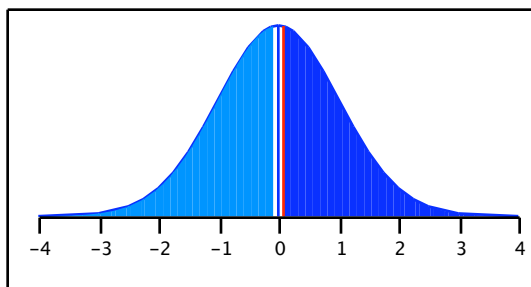
Rsquare 8.27e-5
 Adj Rsquare -0.01141
 Root Mean Square Error 4.792685
 Mean of Response 0.421685
 Observations (or Sum Wgts) 89

t Test

n-c

Assuming equal variances

Statistic	Value	DF	Prob > t
Difference	0.0862		0.9326
Std Err Dif	1.0166	87	
Upper CL Dif	2.1069		
Lower CL Dif	-1.9344		
Confidence	0.95		0.5337

**Analysis of Variance**

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Clonal	1	0.1653	0.1653	0.0072	0.9326
Error	87	1998.3752	22.9698		
C. Total	88	1998.5404			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
c	46	0.380022	0.70664	-1.025	1.7846
n	43	0.466256	0.73088	-0.986	1.9190

Std Error uses a pooled estimate of error variance

Family	N Rows	Mean(IncrDecr)	Std Err(IncrDecr)
Anacardiaceae	2	7.5	2.5
Apiaceae	1	10	.
Apocynaceae	1	4	.
Asclepiadaceae	3	5	3

Family	N Rows	Mean(IncrDecr)	Std Err(IncrDecr)
Asteraceae	28	0.86710714	0.79763015
Boraginaceae	2	-1.2915	2.9585
Brassicaceae	1	-3	.
Caryophyllaceae	1	-1.383	.
Commelinaceae	1	-1.143	.
Cupressaceae	1	10	.
Euphorbiaceae	1	0.397	.
Fabaceae	5	-2.52975	2.62823801
Gentianaceae	1	-1	.
Iridaceae	1	-10	.
Lamiaceae	3	0.20166667	1.9307605
Liliaceae	3	0.5	0.76376262
Linaceae	1	-5	.
Lobeliaceae	1	-8	.
Onagraceae	1	0	.
Oxalidaceae	1	10	.
Poaceae	12	-1.0860833	1.69729472
Polemoniaceae	1	-2	.
Primulaceae	1	-1.727	.
Ranunculaceae	2	0.357	1.643
Rosaceae	5	0.6145	2.53023917
Rutaceae	1	5	.
Santalaceae	1	0.833	.
Saxifragaceae	1	0	.
Scrophulariaceae	2	-0.5	0.5
Solanaceae	3	1.55566667	4.2265548
Verbenaceae	1	-1.083	.
Violaceae	2	-1.926	0.619
Vitaceae	1	3	.

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Data Table=DryPrairieData

Ordinal Logistic Fit for ChangeAbund

Whole Model Test

Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq
Difference	16.200747	9	32.40149	0.0002*
Full	51.267958			
Reduced	67.468705			
RSquare (U)		0.2401		
Observations (or Sum Wgts)		90		

Converged by Objective

Lack Of Fit

Source	DF	-LogLikelihood	ChiSquare
Lack Of Fit	99	30.053424	60.10685
Saturated	108	21.214534	Prob>ChiSq
Fitted	9	51.267958	0.9993

Parameter Estimates

Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[-1]	-1.1292213	0.9586008	1.39	0.2388
Intercept[0]	4.44186201	1.2070508	13.54	0.0002*
Life Form[basal-leaved forb]	-0.4596291	0.6444602	0.51	0.4757
Life Form[stem forb]	0.4208784	0.5511823	0.58	0.4451
Life Form[grass]	-1.5775872	0.8299736	3.61	0.0573
HeightClass[2-1]	-0.6770393	0.7894237	0.74	0.3911
HeightClass[3-2]	-0.9974363	0.729027	1.87	0.1713
HeightClass[4-3]	-1.9071171	1.0290869	3.43	0.0639
HeightClass[5-4]	-3.3402054	2.0143374	2.75	0.0973
HeightClass[6-5]	-7.7442067	66.461976	0.01	0.9072
C.C.	0.07177961	0.1075035	0.45	0.5043

Effect Likelihood Ratio Tests

Source	Nparm	DF	L-R ChiSquare	Prob>ChiSq
Life Form	3	3	5.89249707	0.1170
HeightClass	5	5	19.7741696	0.0014*
C.C.	1	1	0.45801252	0.4986

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Data Table=DryPrairieData

Ordinal Logistic Fit for ChangeAbund**Whole Model Test**

Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq
Difference	18.484338	15	36.96868	0.0013*
Full	44.177917			
Reduced	62.662255			
RSquare (U)	0.2950			
Observations (or Sum Wgts)	89			

Converged by Objective

Lack Of Fit

Source	DF	-LogLikelihood	ChiSquare
Lack Of Fit	107	33.087562	66.17512
Saturated	122	11.090355	Prob>ChiSq
Fitted	15	44.177917	0.9993

Parameter Estimates

Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[-1]	3.09601904	28.746254	0.01	0.9142
Intercept[0]	9.48001806	28.762891	0.11	0.7417
Life Form[basal-leaved forb]	-0.8261973	0.7569738	1.19	0.2751
Life Form[stem forb]	0.18845108	0.6266351	0.09	0.7636
Life Form[grass]	-1.5940783	0.9522359	2.80	0.0941
HeightClass[2-1]	-1.0251526	0.9398228	1.19	0.2754
HeightClass[3-2]	-0.8760151	0.8038464	1.19	0.2758
HeightClass[4-3]	-1.7578145	1.1128724	2.49	0.1142
HeightClass[5-4]	-3.7123937	2.5065309	2.19	0.1386
Longevity[a]	7.71755628	57.407818	0.02	0.8931
Longevity[b]	-4.24659	28.808481	0.02	0.8828
SeedWt	0.06481919	0.3135772	0.04	0.8362
BloomSeason[2-1]	-1.5774714	0.9883668	2.55	0.1105
BloomSeason[3-2]	0.73774067	0.8583197	0.74	0.3901
BloomSeason[4-3]	2.06663571	0.9366902	4.87	0.0274*
BloomSeason[5-4]	-2.594205	1.7191313	2.28	0.1313
Clonal[c]	-0.3813805	0.3250356	1.38	0.2407

Effect Likelihood Ratio Tests

Source	Nparm	DF	L-R ChiSquare	Prob>ChiSq
Life Form	3	3	5.44751195	0.1418
HeightClass	4	4	13.6797551	0.0084*
Longevity	2	2	4.17686909	0.1239
SeedWt	1	1	0.04277541	0.8361
BloomSeason	4	4	10.1795051	0.0375*
Clonal	1	1	1.42392284	0.2328

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Data Table=DryPrairieData

Ordinal Logistic Fit for ChangeAbund**Whole Model Test**

Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq
Difference	21.538965	14	43.07793	<.0001*
Full	48.614738			
Reduced	70.153703			
RSquare (U)		0.3070		
Observations (or Sum Wgts)		92		
Converged by Objective				

Lack Of Fit

Source	DF	-LogLikelihood	ChiSquare
Lack Of Fit	62	22.661852	45.3237
Saturated	76	25.952886	Prob>ChiSq
Fitted	14	48.614738	0.9448

Parameter Estimates

Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[-1]	2.85022128	41.371423	0.00	0.9451
Intercept[0]	8.84308493	41.380847	0.05	0.8308
Life Form[basal-leaved forb]	-0.2703099	0.6569798	0.17	0.6807
Life Form[stem forb]	0.77105977	0.547877	1.98	0.1593
Life Form[grass]	-1.2504084	0.8128937	2.37	0.1240
HeightClass[2-1]	-1.3123884	0.8810267	2.22	0.1363
HeightClass[3-2]	-0.9296799	0.7797777	1.42	0.2332
HeightClass[4-3]	-2.0966267	1.0486266	4.00	0.0456*
HeightClass[5-4]	-2.0454749	1.8348685	1.24	0.2649
HeightClass[6-5]	-8.9071772	109.49953	0.01	0.9352
Longevity[a]	8.02246037	82.70388	0.01	0.9227
Longevity[b]	-4.3295231	41.413386	0.01	0.9167
BloomSeason[2-1]	-0.6902622	0.8743738	0.62	0.4299
BloomSeason[3-2]	0.64414069	0.7850449	0.67	0.4119
BloomSeason[4-3]	1.5764444	0.8136737	3.75	0.0527
BloomSeason[5-4]	-2.4078319	1.654401	2.12	0.1456

Effect Likelihood Ratio Tests

Source	Nparm	DF	L-R ChiSquare	Prob>ChiSq
Life Form	3	3	4.75346286	0.1908
HeightClass	5	5	21.3841689	0.0007*
Longevity	2	2	3.97363487	0.1371
BloomSeason	4	4	7.4958016	0.1119

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Data Table=DryPrairieData

Ordinal Logistic Fit for ChangeAbund**Whole Model Test**

Model	-LogLikelihood	DF	ChiSquare	Prob>ChiSq
Difference	17.107072	9	34.21414	<.0001*
Full	53.046631			
Reduced	70.153703			
RSquare (U)		0.2439		
Observations (or Sum Wgts)		92		
Converged by Objective				

Lack Of Fit

Source	DF	-LogLikelihood	ChiSquare
Lack Of Fit	31	16.853435	33.70687
Saturated	40	36.193195	Prob>ChiSq
Fitted	9	53.046631	0.3378

Parameter Estimates

Term	Estimate	Std Error	ChiSquare	Prob>ChiSq
Intercept[-1]	-0.8364326	0.5529315	2.29	0.1303
Intercept[0]	4.70136438	0.9875026	22.67	<.0001*
HeightClass[2-1]	-0.4963067	0.7336942	0.46	0.4988
HeightClass[3-2]	-1.1393658	0.7479138	2.32	0.1277
HeightClass[4-3]	-2.1865616	0.9994586	4.79	0.0287*
HeightClass[5-4]	-1.459475	1.4352672	1.03	0.3092
HeightClass[6-5]	-7.8114601	66.440476	0.01	0.9064
BloomSeason[2-1]	-0.3636422	0.7786573	0.22	0.6405
BloomSeason[3-2]	0.31814871	0.7076485	0.20	0.6530
BloomSeason[4-3]	1.49872717	0.7941776	3.56	0.0591
BloomSeason[5-4]	-1.9923619	1.5005513	1.76	0.1843

Effect Likelihood Ratio Tests

Source	Nparm	DF	L-R ChiSquare	Prob>ChiSq
HeightClass	5	5	28.0527941	<.0001*
BloomSeason	4	4	5.67227525	0.2250

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Data Table=DryPrairieData

Response IncrDecr**Whole Model****Summary of Fit**

RSquare	0.153805
RSquare Adj	-0.0453
Root Mean Square Error	4.633306
Mean of Response	0.053294
Observations (or Sum Wgts)	85

Analysis of Variance

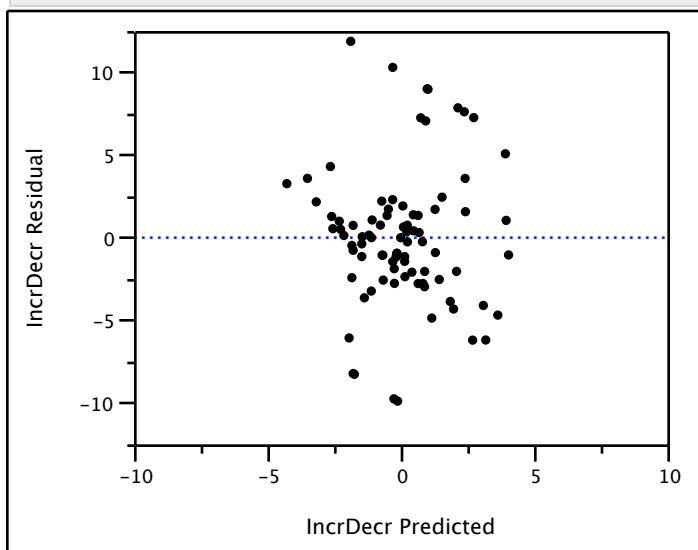
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	16	265.3331	16.5833	0.7725
Error	68	1459.7917	21.4675	Prob > F
C. Total	84	1725.1249		0.7099

Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	62	1354.1421	21.8410	1.2404
Pure Error	6	105.6496	17.6083	Prob > F
Total Error	68	1459.7917		0.4310
				Max RSq
				0.9388

Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
HeightClass	4	4	37.585987	0.4377	0.7809
BloomSeason	4	4	17.106771	0.1992	0.9379
Life Form	3	3	20.399202	0.3167	0.8132
Longevity	2	2	7.264414	0.1692	0.8447
SeedWt	1	1	41.526747	1.9344	0.1688
Clonal	1	1	18.123023	0.8442	0.3614
C.C.	1	1	59.810908	2.7861	0.0997

Residual by Predicted Plot

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Data Table=DryPrairieData

Response IncrDecr

Whole Model

Summary of Fit

RSquare	0.11096
RSquare Adj	0.078033
Root Mean Square Error	4.351394
Mean of Response	0.053294
Observations (or Sum Wgts)	85

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	191.4199	63.8066	3.3698
Error	81	1533.7049	18.9346	Prob > F
C. Total	84	1725.1249		0.0224*

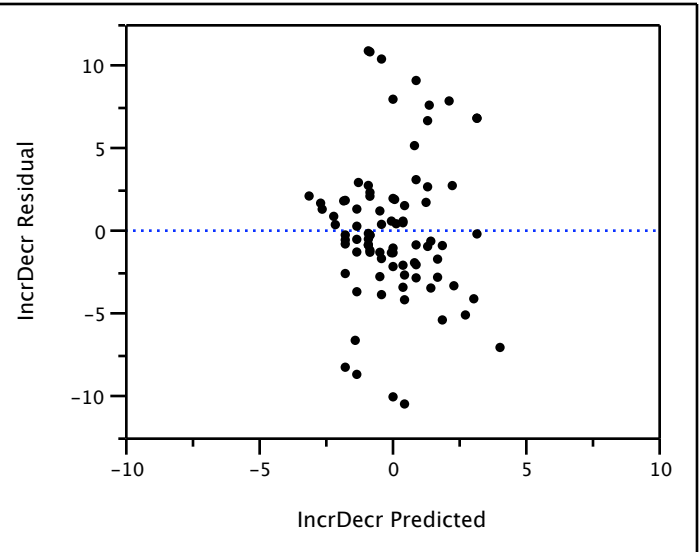
Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	42	854.4682	20.3445	1.1681
Pure Error	39	679.2367	17.4163	Prob > F
Total Error	81	1533.7049		0.3133
				Max RSq
				0.6063

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.12913	1.833783	-0.07	0.9440
SeedWt	0.9251674	0.466557	1.98	0.0508
Clonal[c]	-0.433399	0.496684	-0.87	0.3855
C.C.	-0.432603	0.193261	-2.24	0.0279*

Residual by Predicted Plot



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Data Table=DryPrairieData

Response IncrDecr

Whole Model

Summary of Fit

RSquare	0.102603
RSquare Adj	0.080715
Root Mean Square Error	4.345059
Mean of Response	0.053294
Observations (or Sum Wgts)	85

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	177.0031	88.5015	4.6877
Error	82	1548.1218	18.8795	Prob > F
C. Total	84	1725.1249		0.0118*

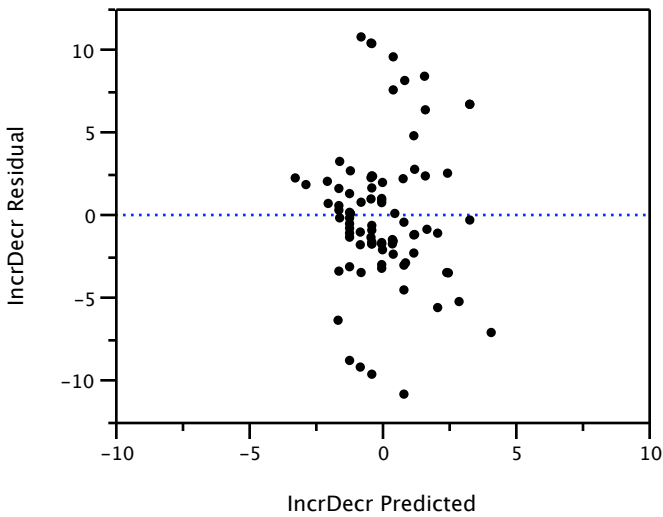
Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	32	720.8250	22.5258	1.3614
Pure Error	50	827.2968	16.5459	Prob > F
Total Error	82	1548.1218		0.1610
				Max RSq
				0.5204

Parameter Estimates

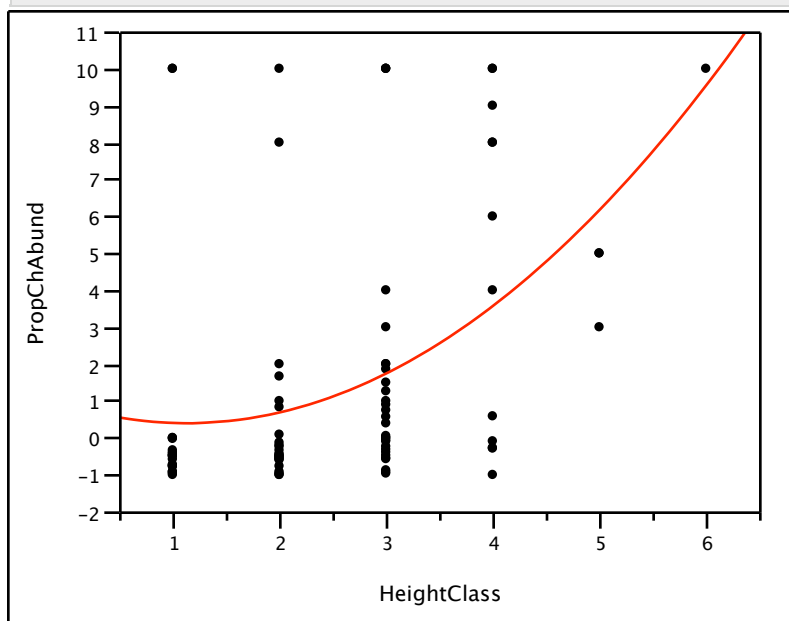
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-0.05918	1.829363	-0.03	0.9743
SeedWt	0.8331928	0.453833	1.84	0.0700
C.C.	-0.401509	0.189671	-2.12	0.0373*

Residual by Predicted Plot



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Data Table=DryPrairieData

Bivariate Fit of PropChAbund By HeightClass

— Polynomial Fit Degree=2

Polynomial Fit Degree=2

PropChAbund = $-1.559074 + 1.0651262 \text{ HeightClass} + 0.3860949 (\text{HeightClass} - 2.51685)^2$

Summary of Fit

RSquare	0.196835
RSquare Adj	0.178157
Root Mean Square Error	3.233732
Mean of Response	1.625892
Observations (or Sum Wgts)	89

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	220.3963	110.198	10.5382
Error	86	899.3042	10.457	Prob > F
C. Total	88	1119.7005		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	-1.559074	0.829208	-1.88	0.0635
HeightClass	1.0651262	0.316672	3.36	0.0012*
(HeightClass-2.51685)^2	0.3860949	0.205232	1.88	0.0633

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Data Table=DryPrairieData

Response PropChAbund**Whole Model****Summary of Fit**

RSquare	0.21663
RSquare Adj	0.032308
Root Mean Square Error	3.254081
Mean of Response	1.31417
Observations (or Sum Wgts)	85

Analysis of Variance

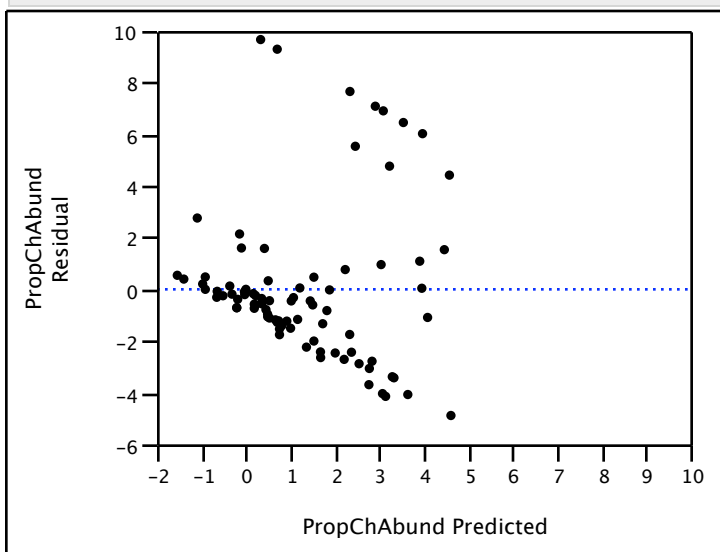
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	16	199.12093	12.4451	1.1753
Error	68	720.05480	10.5890	Prob > F
C. Total	84	919.17573		0.3099

Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	62	661.02047	10.6616	1.0836
Pure Error	6	59.03434	9.8391	Prob > F
Total Error	68	720.05480		0.5151
				Max RSq
				0.9358

Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
HeightClass	4	4	26.701125	0.6304	0.6425
Life Form	3	3	17.551169	0.5525	0.6482
Longevity	2	2	16.827796	0.7946	0.4559
SeedWt	1	1	3.147130	0.2972	0.5874
BloomSeason	4	4	14.261625	0.3367	0.8523
Clonal	1	1	1.457069	0.1376	0.7118
C.C.	1	1	49.476340	4.6724	0.0342*

Residual by Predicted Plot

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Data Table=DryPrairieData

Response PropChAbund**Whole Model****Summary of Fit**

RSquare	0.140127
RSquare Adj	0.097134
Root Mean Square Error	3.143195
Mean of Response	1.31417
Observations (or Sum Wgts)	85

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	128.80163	32.2004	3.2593
Error	80	790.37410	9.8797	Prob > F
C. Total	84	919.17573		0.0157*

Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	32	396.22357	12.3820	1.5079
Pure Error	48	394.15053	8.2115	Prob > F
Total Error	80	790.37410		0.0969
				Max RSq
				0.5712

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.0051377	1.739913	0.00	0.9977
Longevity[a]	-1.53909	2.359484	-0.65	0.5161
Longevity[b]	-0.62609	2.359484	-0.27	0.7914
SeedWt	0.5105616	0.333186	1.53	0.1294
C.C.	-0.400171	0.143967	-2.78	0.0068*

Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
Longevity	2	2	18.874435	0.9552	0.3891
SeedWt	1	1	23.198765	2.3481	0.1294
C.C.	1	1	76.331939	7.7262	0.0068*

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Data Table=DryPrairieData

Response PropChAbund**Whole Model****Summary of Fit**

RSquare	0.119593
RSquare Adj	0.09812
Root Mean Square Error	3.141478
Mean of Response	1.31417
Observations (or Sum Wgts)	85

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	109.92720	54.9636	5.5694
Error	82	809.24854	9.8689	Prob > F
C. Total	84	919.17573		0.0054*

Lack Of Fit

Source	DF	Sum of Squares	Mean Square	F Ratio
Lack Of Fit	32	386.89029	12.0903	1.4313
Pure Error	50	422.35824	8.4472	Prob > F
Total Error	82	809.24854		0.1254
				Max RSq
				0.5405

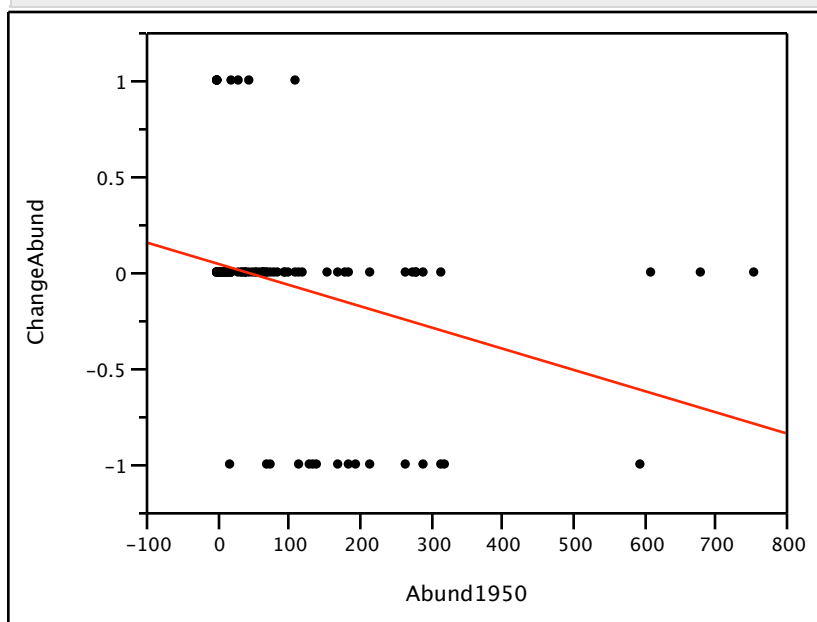
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	1.5491406	1.32263	1.17	0.2449
SeedWt	0.5882636	0.328121	1.79	0.0767
C.C.	-0.340579	0.137132	-2.48	0.0150*

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Data Table=DryPrairieData

Bivariate Fit of ChangeAbund By Abund1950



— Linear Fit

Linear Fit

ChangeAbund = 0.0446472 - 0.0011049 Abund1950

Summary of Fit

RSquare	0.102197
RSquare Adj	0.092221
Root Mean Square Error	0.494041
Mean of Response	-0.07609
Observations (or Sum Wgts)	92

Analysis of Variance

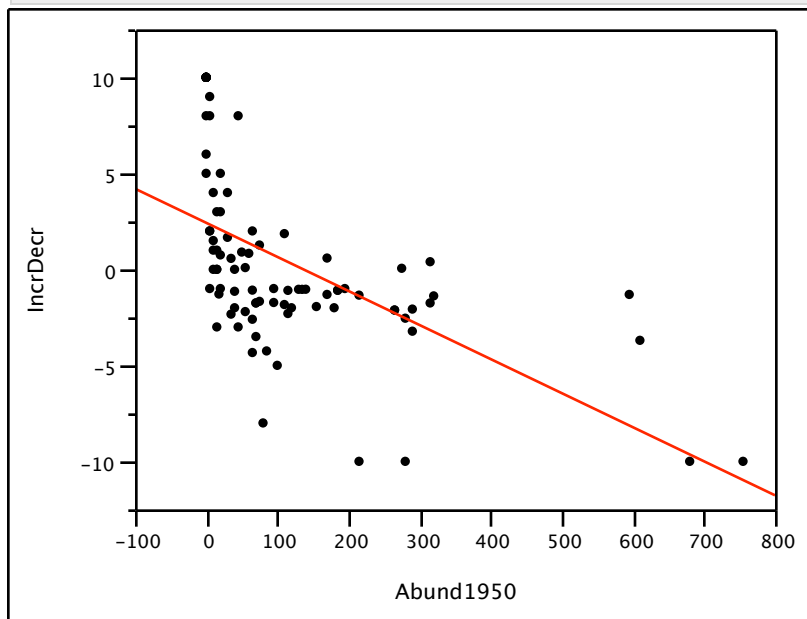
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.500494	2.50049	10.2447
Error	90	21.966898	0.24408	Prob > F
C. Total	91	24.467391		0.0019*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.0446472	0.063842	0.70	0.4861
Abund1950	-0.001105	0.000345	-3.20	0.0019*

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Data Table=DryPrairieData

Bivariate Fit of IncrDecr By Abund1950

— Linear Fit

Linear Fit

$$\text{IncrDecr} = 2.425975 - 0.0177441 \text{ Abund1950}$$

Summary of Fit

RSquare 0.316851
 RSquare Adj 0.308998
 Root Mean Square Error 3.961455
 Mean of Response 0.421685
 Observations (or Sum Wgts) 89

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	633.2386	633.239	40.3513
Error	87	1365.3018	15.693	Prob > F
C. Total	88	1998.5404		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	2.425975	0.525245	4.62	<.0001*
Abund1950	-0.017744	0.002793	-6.35	<.0001*

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Data Table=DryPrairieData

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Data Table=DryPrairieData

Tabulate

HeightClass	ChangeAbund		
	-1	0	1
1	7	13	1
2	6	19	0
3	3	25	1
4	0	9	4
5	0	1	2
6	0	0	1