

The SAS System

The GLIMMIX Procedure

Model Information	
Data Set	WORK.DELTA
Response Variable	Count
Response Distribution	Negative Binomial
Link Function	Log
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Residual PL
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
Treatment	7	DeltaCombo DeltaPpo ModCombo ModPpo WingCombo WingPhero WingPpo
Replicate	8	1 2 3 4 5 6 7 8

Number of Observations Read	56
Number of Observations Used	56

Dimensions	
G-side Cov. Parameters	1
R-side Cov. Parameters	1
Columns in X	8
Columns in Z	8
Subjects (Blocks in V)	1
Max Obs per Subject	56

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	2
Lower Boundaries	2
Upper Boundaries	0
Fixed Effects	Profiled
Starting From	Data

Iteration History					
Iteration	Restarts	Subiterations	Objective Function	Change	Max Gradient
0	0	6	75.888609388	0.40310843	2.108E-6
1	0	5	77.173113232	0.06492956	0.000156
2	0	4	77.577201628	0.00809720	5.665E-8
3	0	3	77.596446575	0.00106980	2.674E-6
4	0	2	77.594612834	0.00014169	3.872E-6
5	0	2	77.594822693	0.00001696	4.043E-6
6	0	2	77.594794651	0.00000105	0.00006
7	0	1	77.594798292	0.00000173	0.000064
8	0	0	77.594797781	0.00000003	0.000069
9	0	4	77.585544036	0.02710596	4.064E-6
10	0	3	77.221017875	0.04277685	0.000832
11	0	4	77.598279801	0.01638033	0.000109
12	0	3	77.59193361	0.00089554	5.586E-7
13	0	3	77.594937346	0.00020485	0.000057
14	0	2	77.594759481	0.00001640	3.349E-6
15	0	2	77.594800329	0.00000304	7.527E-6
16	0	1	77.594797109	0.00000005	0.000031
17	0	1	77.594797748	0.00000038	2.918E-6
18	0	0	77.594797684	0.00000001	3.199E-6

Convergence criterion (PCONV=1.11022E-8) satisfied.

Fit Statistics	
-2 Res Log Pseudo-Likelihood	77.59
Generalized Chi-Square	51.34
Gener. Chi-Square / DF	1.05

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
Replicate	0.008189	0.01758
Scale	0.09765	0.03358

Type III Tests of Fixed Effects				

Effect	Num DF	Den DF	F Value	Pr > F
Treatment	6	42	34.87	<.0001

Treatment Least Squares Means					
Treatment	Estimate	Standard Error	DF	t Value	Pr > t
DeltaCombo	2.9668	0.1402	42	21.16	<.0001
DeltaPpo	2.1704	0.1658	42	13.09	<.0001
ModCombo	3.4095	0.1318	42	25.87	<.0001
ModPpo	3.0636	0.1381	42	22.18	<.0001
WingCombo	4.2385	0.1226	42	34.57	<.0001
WingPhero	-0.1366	0.3955	42	-0.35	0.7316
WingPpo	3.7359	0.1273	42	29.34	<.0001

Differences of Treatment Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer							
Treatment	_Treatment	Estimate	Standard Error	DF	t Value	Pr > t	Adj P
DeltaCombo	DeltaPpo	0.7963	0.2124	42	3.75	0.0005	0.0089
DeltaCombo	ModCombo	-0.4427	0.1870	42	-2.37	0.0226	0.2380
DeltaCombo	ModPpo	-0.09687	0.1915	42	-0.51	0.6157	0.9986
DeltaCombo	WingCombo	-1.2717	0.1807	42	-7.04	<.0001	<.0001
DeltaCombo	WingPhero	3.1033	0.4172	42	7.44	<.0001	<.0001
DeltaCombo	WingPpo	-0.7692	0.1839	42	-4.18	0.0001	0.0026
DeltaPpo	ModCombo	-1.2390	0.2069	42	-5.99	<.0001	<.0001
DeltaPpo	ModPpo	-0.8932	0.2110	42	-4.23	0.0001	0.0022
DeltaPpo	WingCombo	-2.0680	0.2012	42	-10.28	<.0001	<.0001
DeltaPpo	WingPhero	2.3070	0.4264	42	5.41	<.0001	<.0001
DeltaPpo	WingPpo	-1.5655	0.2041	42	-7.67	<.0001	<.0001
ModCombo	ModPpo	0.3458	0.1854	42	1.86	0.0692	0.5138
ModCombo	WingCombo	-0.8290	0.1742	42	-4.76	<.0001	0.0004
ModCombo	WingPhero	3.5460	0.4144	42	8.56	<.0001	<.0001
ModCombo	WingPpo	-0.3265	0.1776	42	-1.84	0.0730	0.5306
ModPpo	WingCombo	-1.1749	0.1791	42	-6.56	<.0001	<.0001
ModPpo	WingPhero	3.2002	0.4165	42	7.68	<.0001	<.0001
ModPpo	WingPpo	-0.6723	0.1823	42	-3.69	0.0006	0.0106
WingCombo	WingPhero	4.3751	0.4116	42	10.63	<.0001	<.0001

WingCombo	WingPpo	0.5025	0.1709	42	2.94	0.0053	0.0722
WingPhero	WingPpo	-3.8725	0.4130	42	-9.38	<.0001	<.0001

Tukey-Kramer Grouping for Treatment Least Squares Means (Alpha=0.05)			
LS-means with the same letter are not significantly different.			
Treatment	Estimate		
WingCombo	4.2385		A
			A
WingPpo	3.7359	B	A
		B	
ModCombo	3.4095	B	C
			C
ModPpo	3.0636		C
			C
DeltaCombo	2.9668		C
DeltaPpo	2.1704		D
WingPhero	-0.1366		E