

The GLIMMIX Procedure

| Model Information | |
|---------------------------|---------------------------|
| Data Set | WORK.BEERICHNESS_YEARS123 |
| Response Variable | TotalSpeciesRichness |
| Response Distribution | Poisson |
| Link Function | Log |
| Variance Function | Default |
| Variance Matrix | Not blocked |
| Estimation Technique | Residual PL |
| Degrees of Freedom Method | Satterthwaite |

| Class Level Information | | |
|-------------------------|--------|---|
| Class | Levels | Values |
| Site | 11 | Bowman Cretsinger Elkader Greving Kaldenberg McClellan NealSmith Peckumn Plunkett Sheller Sloan |
| Year | 3 | 1 2 3 |

| | |
|-----------------------------|----|
| Number of Observations Read | 28 |
| Number of Observations Used | 28 |

| Dimensions | |
|------------------------|----|
| G-side Cov. Parameters | 1 |
| Columns in X | 8 |
| Columns in Z | 11 |
| Subjects (Blocks in V) | 1 |
| Max Obs per Subject | 28 |

| Optimization Information | |
|----------------------------|-------------------|
| Optimization Technique | Dual Quasi-Newton |
| Parameters in Optimization | 1 |
| Lower Boundaries | 1 |
| Upper Boundaries | 0 |
| Fixed Effects | Profiled |
| Starting From | Data |

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| Iteration History | | | | | |
|-------------------|----------|---------------|--------------------|------------|--------------|
| Iteration | Restarts | Subiterations | Objective Function | Change | Max Gradient |
| 0 | 0 | 4 | 27.212632188 | 0.15616250 | 4.012E-7 |
| 1 | 0 | 2 | 27.594487551 | 0.00299572 | 3.806E-6 |
| 2 | 0 | 2 | 27.600210039 | 0.00003947 | 4.453E-8 |
| 3 | 0 | 0 | 27.60019053 | 0.00000000 | 6.124E-6 |

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

| Fit Statistics | |
|------------------------------|-------|
| -2 Res Log Pseudo-Likelihood | 27.60 |
| Generalized Chi-Square | 21.42 |
| Gener. Chi-Square / DF | 0.97 |

| Covariance Parameter Estimates | | |
|--------------------------------|----------|----------------|
| Cov Parm | Estimate | Standard Error |
| Site | 0.05267 | 0.03910 |

| Solutions for Fixed Effects | | | | | | |
|-----------------------------|------|----------|----------------|----|---------|---------|
| Effect | Year | Estimate | Standard Error | DF | t Value | Pr > t |
| Intercept | | 3.2369 | 0.1412 | 22 | 22.92 | <.0001 |
| PercentCover | | 0.02290 | 0.007168 | 22 | 3.19 | 0.0042 |
| Year | 1 | -0.1183 | 0.1526 | 22 | -0.77 | 0.4466 |
| Year | 2 | 0.03109 | 0.1472 | 22 | 0.21 | 0.8347 |
| Year | 3 | 0 | . | . | . | . |
| PercentCover*Year | 1 | 0.03213 | 0.01810 | 22 | 1.77 | 0.0898 |
| PercentCover*Year | 2 | -0.01416 | 0.009200 | 22 | -1.54 | 0.1381 |
| PercentCover*Year | 3 | 0 | . | . | . | . |

| Type III Tests of Fixed Effects | | | | |
|---------------------------------|--------|--------|---------|--------|
| Effect | Num DF | Den DF | F Value | Pr > F |
| PercentCover | 1 | 22 | 10.79 | 0.0034 |
| Year | 2 | 22 | 0.51 | 0.6093 |
| PercentCover*Year | 2 | 22 | 3.64 | 0.0431 |

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Conditional Studentized Residuals

