Appendix S1 - Full model results

Supplemental information for Diaz and Ernest, “Maintenance of community function through compensation breaks down over time in a desert rodent community”. In review at Ecology.

Table of Contents

# Compensation

### Table S1. Coefficients from GLS for compensation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Value | Std.Error | t-value | p-value |
| (Intercept) | 0.3450313 | 0.0294996 | 11.696141 | 0.0000000 |
| oera.L | 0.0647933 | 0.0524103 | 1.236269 | 0.2172146 |
| oera.Q | -0.2833553 | 0.0477359 | -5.935890 | 0.0000000 |

### Table S2. Estimates from GLS for compensation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| oera | emmean | SE | df | lower.CL | upper.CL |
| a\_pre\_pb | 0.1835362 | 0.0520378 | 43.00020 | 0.0785920 | 0.2884805 |
| b\_pre\_reorg | 0.5763899 | 0.0462641 | 46.19839 | 0.4832760 | 0.6695038 |
| c\_post\_reorg | 0.2751677 | 0.0528010 | 45.59188 | 0.1688592 | 0.3814763 |

### Table S3. Contrasts from GLS for compensation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contrast | estimate | SE | df | t.ratio | p.value |
| a\_pre\_pb - b\_pre\_reorg | -0.3928537 | 0.0689413 | 46.70328 | -5.698378 | 0.0000 |
| a\_pre\_pb - c\_post\_reorg | -0.0916315 | 0.0741194 | 44.37665 | -1.236269 | 0.4385 |
| b\_pre\_reorg - c\_post\_reorg | 0.3012222 | 0.0694989 | 48.30465 | 4.334200 | 0.0002 |

# Total energy use

### Table S4. Coefficients from GLS on total energy ratio

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Value | Std.Error | t-value | p-value |
| (Intercept) | 0.5016731 | 0.0271176 | 18.499880 | 0.0000000 |
| oera.L | 0.1413504 | 0.0477646 | 2.959316 | 0.0033001 |
| oera.Q | -0.2503659 | 0.0429312 | -5.831790 | 0.0000000 |

### Table S5. Estimates from GLS on total energy ratio

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| oera | emmean | SE | df | lower.CL | upper.CL |
| a\_pre\_pb | 0.2995118 | 0.0475806 | 36.07948 | 0.2030213 | 0.3960023 |
| b\_pre\_reorg | 0.7060960 | 0.0419773 | 38.39277 | 0.6211459 | 0.7910460 |
| c\_post\_reorg | 0.4994115 | 0.0480066 | 37.50364 | 0.4021849 | 0.5966381 |

### Table S6. Contrasts from GLS on total energy ratio

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contrast | estimate | SE | df | t.ratio | p.value |
| a\_pre\_pb - b\_pre\_reorg | -0.4065842 | 0.0623398 | 40.38396 | -6.522060 | 0.0000 |
| a\_pre\_pb - c\_post\_reorg | -0.1998997 | 0.0675493 | 37.00046 | -2.959316 | 0.0145 |
| b\_pre\_reorg - c\_post\_reorg | 0.2066845 | 0.0626456 | 41.31271 | 3.299267 | 0.0056 |

# Kangaroo rat proportional energy use

### Table S7. Coefficients from GLM on Dipodomys energy use.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Estimate | Std. Error | z value | Pr(>|z|) |
| (Intercept) | 1.4032480 | 0.1503201 | 9.335068 | 0.0000000 |
| oera.L | -1.1000833 | 0.2871738 | -3.830723 | 0.0001278 |
| oera.Q | 0.5855493 | 0.2304516 | 2.540878 | 0.0110574 |

### Table S8. Estimates from GLM on Dipodomys energy use.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| oera | prob | SE | df | asymp.LCL | asymp.UCL |
| a\_pre\_pb | 0.9183528 | 0.0256462 | Inf | 0.8680872 | 0.9686183 |
| b\_pre\_reorg | 0.7160901 | 0.0398537 | Inf | 0.6379782 | 0.7942020 |
| c\_post\_reorg | 0.7035835 | 0.0456677 | Inf | 0.6140765 | 0.7930905 |

### Table S9. Contrasts from GLM on Dipodomys energy use.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contrast | estimate | SE | df | z.ratio | p.value |
| a\_pre\_pb - b\_pre\_reorg | 0.2022627 | 0.0473925 | Inf | 4.2678236 | 0.0001 |
| a\_pre\_pb - c\_post\_reorg | 0.2147693 | 0.0523762 | Inf | 4.1005151 | 0.0001 |
| b\_pre\_reorg - c\_post\_reorg | 0.0125066 | 0.0606124 | Inf | 0.2063368 | 0.9768 |

# C. baileyi proportional energy use

### Table S10. Coefficients from GLM on C. baileyi energy use

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Estimate | Std. Error | z value | Pr(>|z|) |
| (Intercept) | -1.574028 | 0.1670168 | -9.424368 | 0 |
| oera.L | -1.409273 | 0.2010398 | -7.009921 | 0 |
| oplottype.L | 2.184896 | 0.2267112 | 9.637355 | 0 |

### Table S11. Estimates from GLM on C. baileyi energy use

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| oera | prob | SE | df | asymp.LCL | asymp.UCL |
| b\_pre\_reorg | 0.3595031 | 0.0396644 | Inf | 0.2817622 | 0.4372440 |
| c\_post\_reorg | 0.0710590 | 0.0170265 | Inf | 0.0376876 | 0.1044304 |

### Table S12. Contrasts from GLM on C. baileyi energy use.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contrast | estimate | SE | df | z.ratio | p.value |
| b\_pre\_reorg - c\_post\_reorg | 0.2884441 | 0.0403673 | Inf | 7.145484 | 0 |