Appendix S1 - Full model results

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##   
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':  
##   
## filter, lag

## The following objects are masked from 'package:base':  
##   
## intersect, setdiff, setequal, union

##   
## Attaching package: 'nlme'

## The following object is masked from 'package:dplyr':  
##   
## collapse

## Loading in data version 3.25.0

## Joining, by = "plot"

## Loading in data version 3.25.0

## Joining, by = "plot"

## Joining, by = "period"  
## Joining, by = "period"

# Compensation & total energy use

## Compensation

## Joining, by = "oera"

### 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 | 0.0000023 |
| a\_pre\_pb - c\_post\_reorg | -0.0916315 | 0.0741194 | 44.37665 | -1.236269 | 0.4384824 |
| b\_pre\_reorg - c\_post\_reorg | 0.3012222 | 0.0694989 | 48.30465 | 4.334200 | 0.0002150 |

## 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 | 0.0000002 |
| a\_pre\_pb - c\_post\_reorg | -0.1998997 | 0.0675493 | 37.00046 | -2.959316 | 0.0144590 |
| b\_pre\_reorg - c\_post\_reorg | 0.2066845 | 0.0626456 | 41.31271 | 3.299267 | 0.0055640 |

# Community composition

## Kangaroo rat proportional energy use

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Estimate | Std. Error | t value | Pr(>|t|) |
| (Intercept) | 1.4032480 | 0.0594085 | 23.620308 | 0 |
| oera.L | -1.1000833 | 0.1134950 | -9.692789 | 0 |
| oera.Q | 0.5855493 | 0.0910776 | 6.429125 | 0 |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| oera | prob | SE | df | asymp.LCL | asymp.UCL |
| a\_pre\_pb | 0.9183528 | 0.0101357 | Inf | 0.8984872 | 0.9382184 |
| b\_pre\_reorg | 0.7160901 | 0.0157507 | Inf | 0.6852192 | 0.7469610 |
| c\_post\_reorg | 0.7035835 | 0.0180485 | Inf | 0.6682091 | 0.7389579 |

### 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 | 0.0187302 | Inf | 10.7987757 | 0.0000000 |
| a\_pre\_pb - c\_post\_reorg | 0.2147693 | 0.0206998 | Inf | 10.3754389 | 0.0000000 |
| b\_pre\_reorg - c\_post\_reorg | 0.0125066 | 0.0239548 | Inf | 0.5220892 | 0.8605416 |

## C. baileyi proportional energy use

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Estimate | Std. Error | t value | Pr(>|t|) |
| (Intercept) | -1.9839680 | 0.1687782 | -11.754886 | 0.0000000 |
| oera.L | -2.0263514 | 0.2386884 | -8.489527 | 0.0000000 |
| oplottype.L | 2.7763307 | 0.2386884 | 11.631613 | 0.0000000 |
| oera.L:oplottype.L | 0.9918497 | 0.3375563 | 2.938324 | 0.0034691 |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| oera | oplottype | prob | SE | df | asymp.LCL | asymp.UCL |
| b\_pre\_reorg | CC | 0.1172888 | 0.0099189 | Inf | 0.0978482 | 0.1367294 |
| c\_post\_reorg | CC | 0.0027984 | 0.0018422 | Inf | -0.0008123 | 0.0064091 |
| b\_pre\_reorg | EE | 0.7142501 | 0.0139265 | Inf | 0.6869546 | 0.7415456 |
| c\_post\_reorg | EE | 0.2773334 | 0.0156921 | Inf | 0.2465774 | 0.3080894 |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| contrast | oplottype | estimate | SE | df | z.ratio | p.value |
| b\_pre\_reorg - c\_post\_reorg | CC | 0.1144904 | 0.0100885 | Inf | 11.34861 | 0 |
| b\_pre\_reorg - c\_post\_reorg | EE | 0.4369167 | 0.0209807 | Inf | 20.82468 | 0 |