

Experiment: bi- vs uniparental brood care

| response variable | predictor | contrast | Estimate | Std Error | t value | p-value |
|--|-------------------|-----------------------|----------|-----------|---------|---------|
| total number of mite offspring | number of parents | intercept: biparental | 4.71 | 0.17 | | |
| | | uniparental | 0.30 | 0.24 | 1.26 | 0.21 |
| | mite dose | | 0.04 | 0.01 | 5.26 | < 0.001 |
| | dose x parent no | | -0.006 | 0.009 | -0.63 | 0.53 |
| number of mite offspring on parental beetles | number of parents | intercept: biparental | 4.47 | 0.29 | | |
| | | uniparental | 0.33 | 0.38 | 0.88 | 0.39 |
| | mite dose | | 0.04 | 0.01 | 3.50 | < 0.001 |
| | dose x parent no | | -0.01 | 0.01 | -0.77 | 0.44 |
| total number of beetle offspring | number of parents | intercept: biparental | 3.08 | 0.50 | | |
| | | uniparental | 0.01 | 0.07 | 0.17 | 0.87 |
| | mite dose | | -0.004 | 0.003 | -1.22 | 0.22 |
| | dose x parent no | | 0.001 | 0.004 | 0.22 | 0.83 |
| total beetle brood weight | number of parents | intercept: biparental | 1.29 | 0.38 | | |
| | | uniparental | 0.09 | 0.05 | 1.70 | 0.09 |
| | mite dose | | 0.001 | 0.002 | 0.22 | 0.83 |
| | dose x parent no | | -0.003 | 0.003 | -1.11 | 0.27 |

Experiment: brood size manipulation

| response variable | predictor | | Estimate | Std Error | t-value | p-value |
|--|-----------------------|-----------------|-----------------|------------------|----------------|----------------|
| weight of carcass [g] | manipulation | control | 14.39 | 0.22 | | |
| | | early reduction | 0.15 | 0.30 | 0.49 | 0.62 |
| | | late reduction | 0.27 | 0.34 | 0.79 | 0.43 |
| mean pupal weight [mg] | weight of carcass [g] | | -1.34 | 3.51 | -0.38 | 0.70 |
| | | control | 246.91 | 50.84 | | |
| | | early reduction | 34.13 | 7.95 | 4.29 | < 0.001 |
| | | late reduction | 13.18 | 8.93 | 1.48 | 0.15 |
| total number of mite offspring | weight of carcass [g] | | -0.03 | 0.04 | -0.76 | 0.45 |
| | | control | 6.31 | 0.61 | | |
| | | early reduction | 0.19 | 0.10 | 2.00 | 0.05 |
| | | late reduction | 0.11 | 0.11 | 0.99 | 0.33 |
| number of mite offspring on parental beetles | manipulation | | 0.03 | 0.04 | 0.72 | 0.47 |
| | | control | 5.00 | 0.54 | | |
| | | early reduction | 0.29 | 0.09 | 3.34 | < 0.01 |
| | | late reduction | 0.16 | 0.10 | 1.63 | 0.11 |

Schedwill et al. S1 table: Detailed test statistics
response variable **predictor**

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| | | Estimate | Std Error | t-value | p-value |
|---|--|-----------------|------------------|----------------|----------------|
| number of mite offspring in controls and late reduction treatment | Intercept | 6.83 | 0.76 | 8.93 | < 0.001 |
| | weight of carcass [g] | -0.01 | 0.05 | -0.25 | 0.81 |
| | number of beetle larvae (before reduction) | -0.05 | 0.02 | -2.22 | < 0.05 |
| | treatment late reduction | -0.68 | 0.55 | -1.24 | 0.23 |
| | number of larvae x treatment | 0.05 | 0.33 | 1.49 | 0.15 |
| number of mite offspring on parental beetles in controls and late reduction treatment | Intercept | 6.20 | 0.60 | 10.33 | < 0.001 |
| | weight of carcass [g] | 0.03 | 0.04 | 0.59 | 0.56 |
| | number of beetle larvae (before reduction) | -0.07 | 0.02 | -4.15 | <0.001 |
| | treatment late reduction | -1.03 | 0.46 | -2.22 | <0.05 |
| | number of larvae x treatment | 0.07 | 0.03 | 2.73 | <0.05 |