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| **Linear mixed effects model: Worker spatial fidelity zone size and mean scaled distance to the brood center**  Formula: SFZ ~ MeanToBrood\*Nest\*Density + (1 | Colony ID) + (1 | Color ID) | | | | | |
| Random effects: | Name | Variance | Std. dev |  |  |
| Color ID | (Intercept) | 0.013 | 0.115 |  |  |
| Colony ID | (Intercept) | 0.024 | 0.156 |  |  |
| Residual |  | 0.693 | 0.832 |  |  |
| Fixed effects: | *β* a | *SE* b | *df* c | *t* d | *P* |
| (Intercept) | 2.040 | 0.311 | 242.454 | 6.565 | **<0.001** |
| MeanToBrood | -3.924 | 3.170 | 370.128 | -1.238 | 0.217 |
| Nest | -0.297 | 0.379 | 312.595 | -0.784 | 0.433 |
| Density | -0.382 | 0.434 | 181.652 | -0.881 | 0.380 |
| MeanToBrood\*Nest | 2.894 | 3.317 | 367.535 | 0.872 | 0.384 |
| MeanToBrood\*Density | 0.597 | 4.549 | 353.488 | 0.131 | 0.896 |
| Nest\*Density | -0.305 | 0.533 | 327.649 | -0.573 | 0.567 |
| MeanToBrood\*Nest\*Density | 1.479 | 4.713 | 359.539 | 0.314 | 0.754 |
| Model Statistics: |  |  |  |  |  |
| Number of obs: 383, groups: Color ID, 228; Colony ID, 19  Marginal *R*2 = 0.037, Conditional *R*2 = 0.086  a Coefficient  b Standard error  c Degrees of freedom | | | | | |