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| --- | --- | --- | --- | --- | --- |
| **Linear mixed effects model: Worker occurrence zone size and mean scaled distance to the brood center**  Formula: Occur ~ MeanToBrood\*Nest\*Density + (1 | Colony ID) + (1 | Color ID) | | | | | |
| Random effects: | Name | Variance | Std. dev |  |  |
| Color ID | (Intercept) | 0.063 | 0.251 |  |  |
| Colony ID | (Intercept) | 0.132 | 0.364 |  |  |
| Residual |  | 1.408 | 1.864 |  |  |
| Fixed effects: | *β* a | *SE* b | *df* c | *t* d | *P* |
| (Intercept) | 5.095 | 0.465 | 259.459 | 10.967 | **<0.001** |
| MeanToBrood | 9.247 | 4.611 | 372.685 | 2.006 | **0.046** |
| Nest | 0.813 | 0.546 | 330.339 | 1.488 | 0.138 |
| Density | 1.873 | 0.655 | 221.473 | 2.861 | **0.005** |
| MeanToBrood\*Nest | -9.578 | 4.801 | 367.804 | -1.995 | **0.047** |
| MeanToBrood\*Density | -17.477 | 6.652 | 374.012 | -2.627 | **0.009** |
| Nest\*Density | -2.248 | 0.777 | 351.309 | -2.892 | **0.004** |
| MeanToBrood\*Nest\*Density | 19.146 | 6.873 | 372.430 | 2.786 | **0.006** |
| Model Statistics: |  |  |  |  |  |
| Number of obs: 383, groups: Color ID, 228; Colony ID, 19  Marginal *R*2 = 0.039, Conditional *R*2 = 0.156  a Coefficient  b Standard error  c Degrees of freedom | | | | | |