**Supplementary material: Summary of Model Selection Procedure**

**Figure S1.** Residual analysis plots for full models for home range size (HR). NLOC and NDAY are the number of tracking locations and days respectively.



**Figure S2.** Residual analysis plots for full models for maximum distance from households (DMAX). NLOC and NDAY are the number of tracking locations and days respectively.



**Figure S3.** Residual analysis plots for full models for standard distance from households (STD). NLOC and NDAY are the number of tracking locations and days respectively.



**Figure S4.** Residual analysis plots for full models for penetration distance in forest (DINFRST). NLOC and NDAY are the number of tracking locations and days respectively.



**Figure S5.** Residual analysis plots for full models for percentage of tracking locations in forest (DINFRST). NLOC and NDAY are the number of tracking locations and days respectively.



**Table S1.** Mixed effect linear model selection statistics for each variable. SEX: individual’s sex (binomial factor: male = 1, female = 0), AGE: age of the individual, STERIL: it is a sterilized individual? (binomial factor: yes = 1, no = 0), HDENS: household density, DFRST: household-forest distance (m), FOOD: kind of food given (multinomial, three levels: just commercial, commercial + discards, or just discards), NDAY: number of tracking days, NLOC: number of tracking locations. K: number of fitted parameters, AICc: Akaike’s information criterion corrected for small sample sizes, DAICc: difference between each-model’s AICc and the minimum AICc, WAICc: AICc weight, R2M: marginal coefficient of determination (i.e. fixed effects), R2C: conditional coefficient of determination (i.e. fixed + random effects). In all cases, locality (i.e. rural community) was included as a random (grouping) factors.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model | K | AICc | WAICc | R2M | R2C |
| **Y: *Home Range (ha), log-transformed*** |  |  |  |  |  |
| Y ~ HDENS + log(NDAY) | 5 | 0 | 0.459 | 0.35 | 0.35 |
| Y ~ SEX + HDENS + log(NDAY) | 6 | 0.6 | 0.338 | 0.40 | 0.40 |
| Y ~ SEX + AGE + HDENS + log(NDAY) | 7 | 3.2 | 0.093 | 0.40 | 0.40 |
| Y ~ log(NDAY) | 4 | 4.7 | 0.044 | 0.13 | 0.32 |
| Y ~ HDENS | 4 | 4.9 | 0.039 | 0.20 | 0.20 |
| Y ~ SEX + AGE + STERIL + HDENS + log(NDAY) | 8 | 6.1 | 0.021 | 0.41 | 0.41 |
| Y ~ 1 (null) | 3 | 9.1 | 0.005 | 0.00 | 0.10 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + log(NDAY) | 10 | 13.5 | 0.001 | 0.42 | 0.42 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NDAY) | 11 | 17.7 | 0.000 | 0.42 | 0.42 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 18.7 | 0.000 | 0.40 | 0.40 |
| **Y: *Maximum Location Distance (m), log-transformed*** |  |  |  |  |  |
| Y ~ HDENS + log(NLOC) | 5 | 0 | 0.499 | 0.34 | 0.34 |
| Y ~ AGE + HDENS + log(NLOC) | 6 | 1.0 | 0.309 | 0.37 | 0.37 |
| Y ~ SEX + AGE + HDENS + log(NLOC) | 7 | 2.6 | 0.134 | 0.40 | 0.40 |
| Y ~ log(NLOC) | 4 | 5.3 | 0.035 | 0.15 | 0.21 |
| Y ~ HDENS | 4 | 7.8 | 0.010 | 0.10 | 0.10 |
| Y ~ SEX + AGE + HDENS + FOOD + log(NLOC) | 9 | 8.9 | 0.006 | 0.41 | 0.41 |
| Y ~ 1 (null) | 3 | 9.0 | 0.006 | 0.00 | 0.00 |
| Y ~ SEX + AGE + HDENS + FOOD + DFRST + log(NLOC) | 10 | 12.4 | 0.001 | 0.42 | 0.42 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 16.4 | 0.000 | 0.42 | 0.42 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NDAY) | 11 | 21.4 | 0.000 | 0.34 | 0.34 |
| **Y: *Standard Location Distance (m), log-transformed*** |  |  |  |  |  |
| Y ~ AGE + HDENS + log(NLOC) | 6 | 0 | 0.370 | 0.49 | 0.49 |
| Y ~ HDENS + log(NLOC) | 5 | < 0.1 | 0.363 | 0.45 | 0.45 |
| Y ~ SEX + AGE + HDENS + log(NLOC) | 7 | 1.3 | 0.189 | 0.52 | 0.52 |
| Y ~ SEX + AGE + HDENS + DFRST + log(NLOC) | 8 | 4.0 | 0.050 | 0.53 | 0.53 |
| Y ~ log(NLOC) | 4 | 5.4 | 0.025 | 0.15 | 0.44 |
| Y ~ SEX + AGE + HDENS + FOOD + DFRST + log(NLOC) | 10 | 10.7 | 0.002 | 0.54 | 0.54 |
| Y ~ HDENS | 4 | 11.7 | 0.001 | 0.17 | 0.17 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 14.9 | 0.000 | 0.54 | 0.54 |
| Y ~ 1 (null) | 3 | 15.1 | 0.000 | 0.00 | 0.06 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NDAY) | 11 | 18.8 | 0.000 | 0.49 | 0.49 |
| **Y:** ***Distance into the Forest, log-transformed*** |  |  |  |  |  |
| Y ~ HDENS + DFRST + log(NDAY) | 6 | 0 | 0.418 | 0.64 | 0.64 |
| Y ~ SEX + HDENS + DFRST + log(NDAY) | 7 | 0.9 | 0.265 | 0.66 | 0.66 |
| Y ~ HDENS + DFRST | 5 | 2.1 | 0.143 | 0.58 | 0.58 |
| Y ~ SEX + AGE + HDENS + DFRST + log(NDAY) | 8 | 3.5 | 0.073 | 0.67 | 0.67 |
| Y ~ DFRST + log(NDAY) | 5 | 4.2 | 0.052 | 0.52 | 0.60 |
| Y ~ DFRST | 4 | 5.3 | 0.030 | 0.49 | 0.54 |
| Y ~ SEX + AGE + STERIL + HDENS + DFRST + log(NDAY) | 9 | 6.3 | 0.018 | 0.68 | 0.68 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NDAY) | 11 | 12.0 | 0.001 | 0.70 | 0.70 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 14.2 | 0.000 | 0.68 | 0.68 |
| Y ~ HDENS + log(NDAY) | 5 | 17.2 | 0.000 | 0.35 | 0.35 |
| Y ~ HDENS | 4 | 20.0 | 0.000 | 0.24 | 0.24 |
| Y ~ 1 (null) | 3 | 22.8 | 0.000 | -0.01 | 0.22 |
| **Y: *Percentage of Locations in Forest, arc-sin/square-root transformed*** |  |  |  |  |  |
| Y ~ STERIL + HDENS + log(DFRST+1) | 6 | 0 | 0.573 | 0.87 | 0.94 |
| Y ~ STERIL + HDENS + log(DFRST+1) + log(NLOC) | 7 | 2.2 | 0.188 | 0.88 | 0.94 |
| Y ~ HDENS + log(DFRST+1) | 5 | 3.0 | 0.130 | 0.86 | 0.93 |
| Y ~ log(DFRST+1) | 4 | 5.1 | 0.045 | 0.85 | 0.92 |
| Y ~ AGE + STERIL + HDENS + log(DFRST+1) + log(NLOC) | 8 | 5.3 | 0.040 | 0.88 | 0.94 |
| Y ~ STERIL + log(DFRST+1) | 5 | 7.0 | 0.017 | 0.86 | 0.92 |
| Y ~ SEX + AGE + STERIL + HDENS + log(DFRST+1) + log(NLOC) | 9 | 8.8 | 0.007 | 0.88 | 0.94 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + log(DFRST+1) + log(NLOC) | 11 | 17.0 | 0.000 | 0.88 | 0.94 |
| Y ~ SEX + log(AGE) + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 71.7 | 0.000 | 0.62 | 0.62 |
| Y ~ SEX + AGE + STERIL + log(HDENS) + FOOD + DFRST + log(NLOC) | 11 | 72.5 | 0.000 | 0.61 | 0.62 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NLOC) | 11 | 73.1 | 0.000 | 0.61 | 0.62 |
| Y ~ HDENS | 4 | 73.7 | 0.000 | 0.20 | 0.20 |
| Y ~ SEX + AGE + STERIL + HDENS + FOOD + DFRST + log(NDAY) | 11 | 74.9 | 0.000 | 0.59 | 0.60 |
| Y ~ STERIL + HDENS | 5 | 75.7 | 0.000 | 0.22 | 0.22 |
| Y ~ 1 (null) | 3 | 76.8 | 0.000 | 0.00 | 0.17 |
| Y ~ log(NLOC) | 4 | 77.7 | 0.000 | 0.00 | 0.24 |
| Y ~ STERIL | 4 | 78.9 | 0.000 | -0.03 | 0.21 |