Appendix 1. Summary of the results of hypothesis testing looking at temporal and individual variation in habitat selection by 14 coyotes with GPS collars in the Greater Toronto Area from 2012-2017. We did hypotheses testing by determining the model with the lowest delta AIC where all interaction terms had *p*-values < 0.05. *p*-values marked with \* have statistical support. Bold indicates the model with the strongest support. The Full Model includes all interaction terms that had statistical support.

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| --- | --- | --- | --- | --- |
| ***Model*** | ***ΔAIC*** | ***Model Terms*** | ***β +/- SE*** | ***P-values*** |
| *H1: Time of Day* |  |  |  |  |
| **Time x every habitat** | **0** | **Natural Cover****Open Paved****Housing****Day x Natural Cover****Day x Open Paved****Day x Housing** | **1.50 +/- 0.15****0.81 +/- 0.15****-0.22 +/- 0.28****0.07 +/- 0.02****-0.49 +/- 0.13****-0.75 +/- 0.21** | **<0.001 \*****<0.001 \*****0.429****0.003 \*****<0.001 \*** **<0.001 \*** |
| Time x Housing | 111 | Natural CoverOpen PavedHousingDay x Housing | 1.54 +/- 0.150.64 +/- 0.16-0.22 +/- 0.28-0.75 +/- 0.21 | <0.001 \*<0.001 \*0.438<0.001 \* |
| Time x Open Paved | 113 | Natural CoverOpen PavedHousingDay x Open Paved | 1.54 +/- 0.150.82 +/- 0.15-0.50 +/- 0.31-0.50 +/- 0.13 | <0.001 \*<0.001 \*0.104<0.001 \* |
| Time x Natural Cover | 190 | Natural CoverOpen PavedHousingDay x Natural Cover | 1.51 +/- 0.150.64 +/- 0.16-0.50 +/- 0.310.08 +/- 0.02 | <0.001 \*<0.001 \*0.1090.003 \* |
| Habitat Only | 398 | Natural CoverOpen PavedHousing | 1.55 +/- 0.150.64 +/- 0.16-0.50 +/- 0.31 | <0.001 \*<0.001 \*0.108 |
| Null Model | 8,310 |  |  |  |
| *H2: Time of Year* |  |  |  |  |
| Season x every habitat | 0 | Natural CoverOpen PavedHousingBreeding x Natural CoverPup Rearing x Natural CoverBreeding x Open PavedPup Rearing x Open PavedBreeding x HousingPup Rearing x Housing | 1.53 +/- 0.150.60 +/- 0.17-0.94 +/- 0.240.04 +/- 0.020.02 +/- 0.020.11 +/- 0.13-0.09 +/- 0.120.57 +/- 0.240.47 +/- 0.20 | <0.001 \*<0.001 \*<0.001 \*0.0550.4460.3970.4670.017 \*0.022 \* |
| **Season x Housing** | **72** | **Natural Cover****Open Paved****Housing****Breeding x Housing****Pup Rearing x Housing** | **1.54 +/- 0.15****0.64 +/- 0.16****-0.95 +/- 0.24****0.57 +/- 0.24****0.46 +/- 0.20** | **<0.001 \*****<0.001 \*****<0.001 \*****0.017 \*****0.023 \*** |
| Habitat Only | 242 | Natural CoverOpen PavedHousing | 1.55 +/- 0.150.64 +/- 0.16-0.50 +/- 0.31 | <0.001 \*<0.001 \*0.108 |
| Season x Natural Cover | 245 | Natural CoverOpen PavedHousingBreeding x Natural CoverPup Rearing x Natural Cover | 1.53 +/- 0.150.64 +/- 0.16-0.50 +/- 0.310.04 +/- 0.030.01 +/- 0.02 | <0.001 \*<0.001 \*0.1070.1450.789 |
| Season x Open Paved | 261 | Natural CoverOpen PavedHousingBreeding x Open PavedPup Rearing x Open Paved | 1.56 +/- 0.150.61 +/- 017-0.49 +/- 0.310.10 +/- 0.13-0.10 +/- 0.12 | <0.001 \*<0.001 \*0.1160.4250.418 |
| Null Model | 8,344 |  |  |  |
| H3: Social Status |  |  |  |  |
| Status x every habitat | 0 | Natural CoverOpen PavedHousingResident x Natural CoverResident x Open PavedResident x Housing | 1.60 +/- 0.150.40 +/- 0.170.39 +/- 0.25-0.08 +/- 0.070.29 +/- 0.23-1.35 +/- 0.32 | <0.001 \*0.018 \*0.1160.2340.207<0.001 \* |
| **Status x Housing** | **53** | **Natural Cover****Open Paved****Housing****Resident x Housing** | **1.54 +/- 0.15****0.64 +/- 0.16****0.39 +/- 0.25****-1.35 +/- 0.31** | **<0.001 \*****<0.001 \*****0.123****<0.001 \*** |
| Status x Open Paved | 110 | Natural CoverOpen PavedHousingResident x Open Paved | 1.54 +/- 0.140.39 +/- 0.17-0.50 +/- 0.310.30 +/- 0.23 | <0.001 \*0.025 \*0.1020.189 |
| Status x Natural Cover | 152 | Natural CoverOpen PavedHousingResident x Natural Cover | 1.61 +/- 0.160.64 +/- 0.16-0.49 +/- 0.31-0.08 +/- 0.07 | <0.001 \*<0.001 \*0.1110.238 |
| Habitat Only | 158 | Natural CoverOpen PavedHousing  | 1.55 +/- 0.150.64 +/- 0.16-0.50 +/- 0.31 | <0.001 \*<0.001 \*0.108 |
| Null Model  | 8,260 |  |  |  |
| H4: Age |  |   |  |  |
| **Habitat Only** | **0** | **Natural Cover****Open Paved****Housing**  | **1.55 +/- 0.15****0.64 +/- 0.16****-0.50 +/- 0.31** | **<0.001 \*****<0.001 \*****0.108** |
| Age x Housing | 0 | Natural CoverOpen PavedHousingAdult x Housing | 1.53 +/- 0.150.63 +/- 0.16-0.22 +/- 0.26-0.42 +/- 0.50 | <0.001 \*<0.001 \* 0.3970.396 |
| Age x Open Paved | 0 | Natural CoverOpen PavedHousingAdult x Open Paved | 1.54 +/- 0.150.32 +/- 0.17-0.50 +/- 0.310.45 +/- 0.26 | <0.001 \*0.0570.1050.082 |
| Age x every habitat | 1 | Natural CoverOpen PavedHousingAdult x Natural CoverAdult x Open PavedAdult x Housing | 1.51 +/- 9,160.27 +/- 0.15-0.27 +/- 0.220.02 +/- 0.250.49 +/- 0.25-0.35 +/- 0.48 | <0.001 \*0.0760.2290.9260.0510.465 |
| Age x Natural Cover | 3 | Natural CoverOpen PavedHousingAdult x Natural Cover | 1.58 +/- 0.190.63 +/- 0.16-0.50 +/- 0.30-0.05 +/- 0.27 | <0.001 \*<0.001 \*0.1040.851 |
| Null Model | 8,102 |  |  |  |
| H5: Sex |  |  |  |  |
| **Habitat Only** | **0** | **Natural Cover****Open Paved****Housing**  | **1.55 +/- 0.15****0.64 +/- 0.16****-0.50 +/- 0.31** | **<0.001 \*****<0.001 \*****0.108** |
| Sex x Housing | 2 | Natural CoverOpen PavedHousingMale x Open Paved | 1.54 +/- 0.150.64 +/- 0.16-0.74 +/- 0.330.48 +/- 0.61 | <0.001 \*<0.001 \*0.025 \*0.439 |
| Sex x Open Paved | 3 | Natural CoverOpen PavedHousingMale x Open Paved | 1.54 +/- 0.150.72 +/- 0.22-0.50 +/- 0.31-0.17 +/- 0.31 | <0.001 \*0.001 \*0.1060.590 |
| Sex x Natural Cover | 3 | Natural CoverOpen PavedHousingMale x Natural Cover | 1.48 +/- 0.190.64 +/- 0.16-0.50 +/- 0.310.12 +/- 0.29 | <0.001 \*<0.001 \*0.1080.674 |
| Sex x every habitat | 9 | Natural CoverOpen PavedHousingMale x Natural CoverMale x Open PavedMale x Housing  | 1.47 +/- 0.190.70 +/- 0.22-0.75 +/- 0.330.13 +/- 0.29-0.13 +/- 0.310.48 +/- 0.62 | <0.001 \*0.001 \*0.023 \*0.6500.6690.432 |
| Null Model | 8,102 |  |  |  |
| Full Model |  |  |  |  |
| **Full Model** | **0** | **Natural Cover****Open Paved****Housing****Day x Natural Cover****Day x Open Paved****Day x Housing****Breeding x Housing****Pup Rearing x Housing****Resident x Housing** | **1.50 +/- 0.14****0.82 +/- 0.15****0.13 +/- 0.19****0.07 +/- 0.02****-0.49 +/- 0.13****-0.79 +/- 0.21****0.64 +/- 0.20****0.47 +/- 0.13****-1.21 +/- 0.28** | **<0.001 \*****<0.001 \*****0.480** **<0.001 \*****<0.001 \*****<0.001 \*****0.002 \*****<0.001 \*****<0.001 \*** |
| Time and Season | 64 | Natural CoverOpen PavedHousingDay x Natural CoverDay x Open PavedDay x HousingBreeding x HousingPup Rearing x Housing | 1.50 +/- 0.140.81 +/- 0.15-0.67 +/- 0.200.07 +/- 0.02-0.49 +/- 0.12-0.79 +/- 0.210.55 +/- 0.250.51 +/- 0.20 | <0.001 \*<0.001 \*0.001 \*<0.001 \*<0.001 \*<0.001 \*0.024 \*0.010 \* |
|  |  |  |  |  |
| Time and Status | 128 | Natural CoverOpen PavedHousingDay x Natural CoverDay x Open PavedDay x HousingResident x Housing | 1.49 +/- 0.140.81 +/- 0.150.64 +/- 0.230.07 +/- 0.12-0.49 +/- 0.13-0.77 +/- 0.21-1.31 +/- 0.27 | <0.001 \*<0.001 \*0.005 \*<0.001 \*<0.001 \*<0.001 \*<0.001 \* |
| Time  | 237 | Natural CoverOpen PavedHousingDay x Natural CoverDay x Open PavedDay x Housing | 1.50 +/- 0.150.81 +/- 0.15-0.22 +/- 0.280.07 +/- 0.02-0.49 +/- 0.13-0.75 +/- 0.21 | <0.001 \*<0.001 \*0.4290.003 \*<0.001 \* <0.001 \* |
| Season  | 275 | Natural CoverOpen PavedHousingBreeding x HousingPup Rearing x Housing | 1.54 +/- 0.150.64 +/- 0.16-0.95 +/- 0.240.57 +/- 0.240.46 +/- 0.20 | <0.001 \*<0.001 \*<0.001 \*0.017 \*0.023 \* |
| Status | 339 | Natural CoverOpen PavedHousingResident x Housing | 1.54 +/- 0.150.64 +/- 0.160.39 +/- 0.25-1.35 +/- 0.31 | <0.001 \*<0.001 \*0.123<0.001 \* |
| Season and Status | 361 | Natural CoverOpen PavedHousingBreeding x HousingPup Rearing x HousingResident x Housing | 1.55 +/- 0.150.64 +/- 0.16-0.07 +/- 0.200.64 +/- 0.200.42 +/- 0.13-1.30 +/- 0.31 | <0.001 \*<0.001 \*0.7450.002 \*<0.001 \*<0.001 \* |