

Supplementary Information**Same yet different-individual red squirrels (*Sciurus vulgaris*) react differently to human presence in an urban park****K. Dagny, J. Gryz, D. Klich, M. Brach**

Most squirrels (with the exception of two individuals) were trapped more than once (16 times maximum), being trapped 1 to 2.5 times in one session (Table S1). All but one individuals were trapped as adults. Only one squirrel (ID 12) was trapped first (in Jan 2012) as a juvenile and then trapped again in subsequent sessions (Mar to Nov).

Table S1: Number of total catches for each individual squirrel; number of sessions in which the squirrel was trapped and an average number of catches per trapping session

| Squirrel ID | Sex | # of catches | # of sessions | # of catches/session (min;max) |
|-------------|-----|--------------|---------------|--------------------------------|
| 1 | M | 12 | 6 | 2.0 (1;4) |
| 3 | M | 10 | 5 | 2.0 (1;3) |
| 10 | F | 7 | 6 | 1.3 (1;2) |
| 11 | F | 16 | 7 | 2.3 (2;3) |
| 12 | F | 10 | 6 | 1.7 (1;3) |
| 17 | M | 6 | 4 | 1.5 (1;2) |
| 20 | F | 7 | 6 | 1.2 (1;2) |
| 28 | F | 11 | 7 | 1.6 (1;2) |
| 31 | M | 5 | 2 | 2.5 (2;3) |
| 32 | M | 1 | 1 | 1.0 (1;1) |
| 34 | M | 6 | 3 | 2.0 (1;3) |
| 41 | F | 1 | 1 | 1.0 (1;1) |

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Model selection procedure: Model 1: explaining position of animals (in a tree vs. on the ground, Table S2) and Model 2: positive reaction of squirrels to human (Table S3). In Model 1 the sex of animals (SEX) was excluded. The best model included the number of nuclei (NUCLEI) and the core area size (CORE). Although difference in AIC values between the best model and the next two in the ranking (Rank 2 and 3) was not exceeding 2, the best model was the one with high relative contribution expressed by Akaike weights ω_i . In the Model 2 the sex of animals (SEX) and the number of nuclei (NUCLEI) were excluded. The best model included only position (POSITION) and the core area size (CORE). Although difference in AIC values between the best model and the next two in the ranking (Rank 2 and 3) was not exceeding 2, the best model was the simplest one with high relative contribution expressed by Akaike weights (ω_i).

Table S2: Ranking of the models (including null model) within 95% confidence intervals ($\sum\omega_i=0.95$) explaining the position of animals (presence in the tree vs. on the ground) (ΔAIC =AIC differences; ω_i =Akaike weights; Rank=rank of the models based on AIC values; POSITION=presence in the tree vs. on the ground; SEX=sex of animals; CORE=core area size (≤ 1 ha vs. > 1 ha); NUCLEI=number of nuclei (≤ 3 ; > 3); chosen model marked in bold)

| Model | ΔAIC | ω_i | Rank |
|----------------------|--------------|--------------|----------|
| CORE + NUCLEI | 0.0 | 0.562 | 1 |
| CORE | 1.9 | 0.227 | 2 |
| SEX + CORE + NUCLEI | 2.0 | 0.207 | 3 |
| null model | 10.8 | 0.003 | 7 |

Table S3: Ranking of the models (including null model) within 95% confidence intervals ($\sum\omega_i=0.95$) explaining the positive reactions of squirrels to humans (ΔAIC =AIC differences; ω_i =Akaike weights; Rank=rank of the models based on AIC values; POSITION=presence in the tree vs. on the ground; SEX=sex of animals; CORE=core area size (≤ 1 ha vs. > 1 ha); NUCLEI=number of nuclei (≤ 3 ; > 3); chosen model marked in bold)

| Model | ΔAIC | ω_i | Rank |
|--------------------------------|--------------|--------------|----------|
| POSITION + CORE | 0.0 | 0.428 | 1 |
| POSITION + SEX + CORE | 1.1 | 0.247 | 2 |
| POSITION + CORE + NUCLEI | 2.0 | 0.157 | 3 |
| POSITION + SEX + CORE + NUCLEI | 2.8 | 0.106 | 4 |
| POSITION | 5.8 | 0.023 | 5 |
| null model | 97.4 | 0.000 | 13 |