**Appendix 1.** Location of patches where surveys were carried out in the surroundings of Plovdiv, Bulgaria.

|  |  |  |
| --- | --- | --- |
| Patch | Latitude (°N) | Longitude (°E) |
|  |  |  |
| 1 | 42.1424 | 24.7005 |
| 2 | 42.1560 | 24.7639 |
| 3 | 42.1622 | 24.7972 |
| 4 | 42.1510 | 24.8828 |
| 5 | 42.1246 | 24.8686 |
| 6 | 42.2286 | 24.8579 |
| 7 | 42.1498 | 25.1382 |

**Appendix 2.** Population density values.

|  |  |
| --- | --- |
| Patch | Density (ind./km²) |
| 1 | 1953.5 |
| 2 | 1614.3 |
| 3 | 1284.9 |
| 4 | 461.24 |
| 5 | 461.24 |
| 6 | 807.16 |

**Appendix 3.** Predictor variables for each patch.

Table A3.1. Patch characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Patch | Area (km²) | Perimeter/Area ratio | Veg. Str. | Isolation (m) |
| 1 | 0.103 | 14.686 | 1.050 | 340.714 |
| 2 | 1.653 | 1.401 | 1.056 | 33.032 |
| 3 | 2.021 | 0.883 | 1.095 | 20.247 |
| 4 | 0.716 | 2.066 | 1.026 | 5.328 |
| 5 | 0.398 | 13.163 | 1.001 | 326.982 |
| 6 | 0.458 | 2.193 | 1.045 | 7.701 |
| 7 | 2.098 | 3.495 | - | 209.967 |

Table A3.2. Landscape composition variables at each scale for each patch.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Patch | 50 m | 150 m | 250 m | 500 m | 750 m | 1 km | 1.5 km | 2 km | 2.5 km | 3 km |
|  |  |  |  |  |  |  |  |  |  |  |
|  | *Habitat* |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 1 | 0.484 | 0.308 | 0.181 | 0.116 | 0.098 | 0.079 | 0.075 | 0.088 | 0.110 | 0.115 |
| 2 | 0.331 | 0.390 | 0.370 | 0.281 | 0.226 | 0.197 | 0.171 | 0.140 | 0.121 | 0.107 |
| 3 | 0.475 | 0.476 | 0.463 | 0.346 | 0.284 | 0.243 | 0.197 | 0.161 | 0.132 | 0.111 |
| 4 | 0.394 | 0.419 | 0.318 | 0.214 | 0.166 | 0.137 | 0.109 | 0.100 | 0.104 | 0.115 |
| 5 | 0.263 | 0.383 | 0.410 | 0.327 | 0.267 | 0.199 | 0.146 | 0.136 | 0.114 | 0.105 |
| 6 | 0.607 | 0.440 | 0.320 | 0.193 | 0.138 | 0.119 | 0.115 | 0.109 | 0.113 | 0.107 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | *Urban areas* |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 1 | 0.000 | 0.000 | 0.000 | 0.010 | 0.017 | 0.021 | 0.053 | 0.078 | 0.105 | 0.147 |
| 2 | 0.048 | 0.063 | 0.136 | 0.233 | 0.265 | 0.286 | 0.340 | 0.391 | 0.436 | 0.474 |
| 3 | 0.353 | 0.467 | 0.510 | 0.659 | 0.743 | 0.803 | 0.869 | 0.892 | 0.895 | 0.909 |
| 4 | 0.255 | 0.413 | 0.591 | 0.783 | 0.878 | 0.937 | 1.010 | 1.027 | 0.993 | 0.937 |
| 5 | 0.372 | 0.391 | 0.401 | 0.409 | 0.400 | 0.428 | 0.491 | 0.522 | 0.531 | 0.542 |
| 6 | 0.338 | 0.542 | 0.648 | 0.776 | 0.867 | 0.879 | 0.817 | 0.813 | 0.843 | 0.871 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | *Cropland* |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 1 | 0.054 | 0.460 | 0.678 | 0.769 | 0.751 | 0.807 | 0.834 | 0.768 | 0.706 | 0.653 |
| 2 | 0.271 | 0.231 | 0.260 | 0.319 | 0.370 | 0.392 | 0.394 | 0.393 | 0.382 | 0.370 |
| 3 | 0.033 | 0.023 | 0.020 | 0.023 | 0.023 | 0.021 | 0.024 | 0.047 | 0.073 | 0.085 |
| 4 | 0.026 | 0.013 | 0.015 | 0.016 | 0.018 | 0.019 | 0.017 | 0.022 | 0.037 | 0.056 |
| 5 | 0.083 | 0.065 | 0.078 | 0.195 | 0.269 | 0.294 | 0.301 | 0.291 | 0.303 | 0.307 |
| 6 | 0.018 | 0.030 | 0.049 | 0.072 | 0.072 | 0.083 | 0.121 | 0.133 | 0.111 | 0.099 |