|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix B.** Mean population densities (pairs/km2, mean ±SD) of the most common species (at least 15 observations) at four copper smelters areas and Spearman correlations between density and distance to the smelter. Correlations significant at α = 0.05 are shown in bold. | | | | | | | |
| **Harjavalta (n = 14 sites)** | | | | | | | |
| Species1 | Mean | | SD | | rs | | p |
| *Alauda arvensis* | 5.90 | | 5.18 | | 0.16 | | 0.58 |
| *Anthus trivialis* | 19.2 | | 15.5 | | -0.031 | | 0.92 |
| *Carduelis chloris* | 11.5 | | 8.40 | | **-0.59** | | **0.026** |
| *Carduelis spinus* | 25.6 | | 11.9 | | 0.28 | | 0.34 |
| *Columba palumbus* | 1.40 | | 1.30 | | **0.60** | | **0.024** |
| *Corvus monedula* | 0.41 | | 0.83 | | -0.51 | | 0.062 |
| *Corvus corone* | 2.71 | | 1.61 | | **-0.57** | | **0.033** |
| *Dendrocopos major* | 5.22 | | 6.25 | | -0.050 | | 0.87 |
| *Emberiza citrinella* | 33.5 | | 27.8 | | -0.32 | | 0.27 |
| *Erithacus rubecula* | 38.1 | | 26.7 | | **0.67** | | **0.0085** |
| *Ficedula hypoleuca* | 59.5 | | 39.1 | | -0.39 | | 0.17 |
| *Fringilla coelebs* | 109 | | 23.7 | | 0.29 | | 0.31 |
| *Loxia curvirostra* | 1.60 | | 2.66 | | 0.38 | | 0.18 |
| *Loxia pytyopsittacus* | 3.62 | | 8.51 | | -0.36 | | 0.21 |
| *Motacilla alba* | 5.18 | | 19.4 | | -0.37 | | 0.19 |
| *Muscicapa striata* | 48.0 | | 43.2 | | -0.16 | | 0.59 |
| *Parus caeruleus* | 80.9 | | 77.8 | | **-0.73** | | **0.0031** |
| *Parus cristatus* | 32.3 | | 37.4 | | **0.55** | | **0.042** |
| *Parus major* | 81.6 | | 38.2 | | **-0.63** | | **0.015** |
| *Parus montanus* | 24.5 | | 28.4 | | 0.45 | | 0.10 |
| *Passer domesticus* | 15.4 | | 35.8 | | -0.52 | | 0.055 |
| *Phasianus colchicus* | 0.66 | | 0.94 | | **0.55** | | **0.042** |
| *Phoenicurus phoenicurus* | 3.50 | | 7.09 | | **-0.58** | | **0.029** |
| *Phylloscopus collybita* | 6.75 | | 8.50 | | **0.56** | | **0.039** |
| *Phylloscopus trochilus* | 71.2 | | 17.0 | | -0.20 | | 0.49 |
| *Phylloscopus sibilatrix* | 8.79 | | 12.5 | | 0.094 | | 0.75 |
| *Pica pica* | 2.84 | | 3.02 | | -0.43 | | 0.12 |
| *Pyrrhula pyrrhula* | 8.66 | | 10.0 | | 0.31 | | 0.28 |
| *Regulus regulus* | 33.2 | | 32.8 | | **0.58** | | **0.030** |
| *Sylvia borin* | 4.64 | | 6.03 | | -0.23 | | 0.42 |
| *Sylvia curruca* | 23.4 | | 16.0 | | 0.078 | | 0.79 |
| *Turdus iliacus* | 16.9 | | 16.3 | | 0.19 | | 0.51 |
| *Turdus merula* | 21.6 | | 20.6 | | **0.54** | | **0.045** |
| *Turdus philomelos* | 5.73 | | 8.99 | | **0.67** | | **0.0094** |
| *Turdus pilaris* | 15.6 | | 18.7 | | -0.51 | | 0.060 |
| *Turdus viscivorus* | 3.40 | | 5.72 | | 0.35 | | 0.23 |
| **Karabash (n = 10 sites)** | | | | | | | |
| Species | Mean | SD | | rs | | p | |
| *Anthus trivialis* | 28.3 | 18.6 | | **0.68** | | **0.031** | |
| *Carpodacus erythrinus* | 6.73 | 6.48 | | -0.074 | | 0.84 | |
| *Cuculus canorus* | 0.33 | 0.19 | | 0.53 | | 0.12 | |
| *Dendrocopos major* | 9.13 | 6.57 | | 0.53 | | 0.11 | |
| *Erithacus rubecula* | 11.7 | 15.5 | | **0.67** | | **0.033** | |
| *Ficedula hypoleuca* | 38.5 | 27.4 | | **0.71** | | **0.021** | |
| *Fringilla coelebs* | 101 | 40.2 | | **0.82** | | **0.0035** | |
| *Loxia curvirostra* | 1.21 | 0.93 | | 0.63 | | 0.050 | |
| *Muscicapa striata* | 42.0 | 40.2 | | 0.12 | | 0.73 | |
| *Parus major* | 20.2 | 16.9 | | 0.56 | | 0.091 | |
| *Parus montanus* | 32.4 | 42.2 | | 0.61 | | 0.062 | |
| *Phoenicurus phoenicurus* | 4.59 | 5.26 | | 0.18 | | 0.62 | |
| *Phylloscopus collybita* | 6.12 | 5.04 | | **0.78** | | **0.0080** | |
| *Phylloscopus trochiloides* | 55.8 | 42.9 | | 0.35 | | 0.32 | |
| *Sylvia atricapilla* | 14.5 | 12.8 | | 0.51 | | 0.13 | |
| *Sylvia borin* | 6.03 | 6.58 | | 0.30 | | 0.40 | |
| *Turdus philomelos* | 8.03 | 7.81 | | **0.70** | | **0.023** | |
| **Monchegorsk (n = 10 sites)** | | | | | | | |
| Species | Mean | SD | | rs | | p | |
| *Corvus corax* | 0.068 | 0.092 | | **-0.64** | | **0.048** | |
| *Cuculus canorus* | 0.23 | 0.25 | | **0.86** | | **0.0016** | |
| *Fringilla montifringilla* | 18.2 | 19.8 | | **0.93** | | **0.0001** | |
| *Phoenicurus phoenicurus* | 5.51 | 5.74 | | **0.70** | | **0.024** | |
| *Phylloscopus trochilus* | 28.1 | 20.0 | | **0.84** | | **0.0026** | |
| *Tringa glareola* | 1.21 | 1.83 | | 0.40 | | 0.25 | |
| *Tringa nebularia* | 1.28 | 1.78 | | 0.32 | | 0.37 | |
| *Turdus iliacus* | 22.9 | 23.0 | | **0.95** | | **<0.0001** | |
| *Turdus philomelos* | 6.69 | 8.73 | | **0.83** | | **0.0033** | |
| **Revda (n = 10 sites)** | | | | | | | |
| Species | Mean | SD | | rs | | p | |
| *Anthus trivialis* | 10.1 | 12.7 | | -0.57 | | 0.083 | |
| *Carpodacus erythrinus* | 9.32 | 6.36 | | 0.29 | | 0.42 | |
| *Carduelis spinus* | 10.2 | 4.40 | | 0.16 | | 0.67 | |
| *Certhia familiaris* | 28.2 | 20.6 | | **0.67** | | **0.034** | |
| *Cuculus saturatus* | 0.21 | 0.22 | | 0.15 | | 0.68 | |
| *Erithacus rubecula* | 50.2 | 16.7 | | 0.28 | | 0.43 | |
| *Ficedula hypoleuca* | 20.8 | 14.7 | | **0.91** | | **0.0002** | |
| *Ficedula parva* | 26.9 | 27.9 | | **0.83** | | **0.0032** | |
| *Fringilla coelebs* | 76.2 | 16.3 | | **0.72** | | **0.018** | |
| *Loxia curvirostra* | 1.38 | 0.83 | | -0.21 | | 0.56 | |
| *Parus ater* | 37.2 | 15.5 | | 0.63 | | 0.050 | |
| *Parus montanus* | 41.9 | 17.5 | | 0.25 | | 0.48 | |
| *Phoenicurus phoenicurus* | 3.37 | 3.67 | | -0.57 | | 0.087 | |
| *Phylloscopus collybita* | 13.1 | 4.55 | | -0.083 | | 0.82 | |
| *Phylloscopus trochiloides* | 128 | 53.3 | | **0.71** | | **0.021** | |
| *Prunella modularis* | 7.34 | 3.87 | | -0.13 | | 0.72 | |
| *Pyrrhula pyrrhula* | 22.2 | 13.9 | | **0.75** | | **0.012** | |
| *Regulus regulus* | 37.5 | 33.1 | | **0.69** | | **0.027** | |
| *Sylvia atricapilla* | 18.1 | 12.0 | | **0.81** | | **0.0041** | |
| *Sylvia curruca* | 19.8 | 7.08 | | -0.16 | | 0.66 | |
| *Turdus iliacus* | 10.4 | 18.5 | | 0.42 | | 0.23 | |
| *Turdus philomelos* | 16.1 | 7.64 | | **0.70** | | **0.023** | |
| *Zoothera dauma* | 9.36 | 7.98 | | **0.71** | | **0.022** | |
| 1 The nomenclature follows the AERC Western Palearctic list (Crochet et al. 2010). | | | | | | | |