

Supplementary material 1

Nine-year bird community development on Radovesická spoil heap

Kryštof Korejs¹

¹ Department of Zoology, Faculty of Science, University of South Bohemia in České Budějovice, Branišovská 1760, 370 05 České Budějovice, Czech Republic

*

Table S1 - List of bird species recorded at all sites during all surveys, their scientific and common names, abbreviation used in analyses and overall abundances during the course of our study. Rarity formula was taken from Šálek (2012) and combined with information from field work.

<i>Scientific name</i>	Common name	Abbreviation	Rarity index	Total individuals counted
<i>Acrocephalus arundinaceus</i>	Great reed warbler	Acrc Arun	0,693	134
<i>Acrocephalus palustris</i>	Marsh warbler	Acrc Pals	0,175	66
<i>Acrocephalus scirpaceus</i>	Eurasian reed warbler	Acrc Scir	0,377	114
<i>Acrocephalus schoenobaenus</i>	Sedge warbler	Acrc Scho	0,546	68
<i>Aegithalos caudatus</i>	Long-tailed tit	Aegi Caud	0,134	56
<i>Alauda arvensis</i>	Eurasian skylark	Alau Arv	0,040	1467
<i>Anas platyrhynchos</i>	Mallard	Anas Plat	0,040	52
<i>Anser anser</i>	Greylag goose	Ansr Ansr	0,005	21
<i>Anthus pratensis</i>	Meadow pipit	Anth Prat	0,583	96
<i>Anthus trivialis</i>	Tree pipit	Anth Triv	0,132	548
<i>Ardea cinerea</i>	Grey heron	Arde Cinr	0,005	11
<i>Aythya ferina</i>	Common pochard	Ayth Fern	0,005	14
<i>Aythya fuligula</i>	Tufted duck	Ayth Fulg	0,005	18
<i>Botaurus stellaris</i>	Eurasian bittern	Botr Stel	0,895	2
<i>Buteo buteo</i>	Common buzzard	Bute Bute	0,005	53
<i>Carduelis cannabina</i>	Common linnet	Card Cann	0,099	138
<i>Carduelis carduelis</i>	European goldfinch	Card Card	0,043	89
<i>Carduelis chloris</i>	European greenfinch	Card Chlr	0,038	104
<i>Certhia familiaris</i>	Eurasian treecreeper	Cert Faml	0,153	15
<i>Ciconia ciconia</i>	White stork	Cicn Cicn	0,283	2
<i>Ciconia nigra</i>	Black stork	Cicn Nigr	0,213	8

<i>Circus aeruginosus</i>	Western marsh harrier	Circ Aerg	0,285	57
<i>Coccothraustes coccothraustes</i>	Hawfinch	Cocc Cocc	0,172	92
<i>Columba oenas</i>	Stock dove	Colm Oens	0,309	4
<i>Columba palumbus</i>	Common wood pigeon	Colm Palm	0,032	160
<i>Corvus corone</i>	Carrion crow	Corv Corn	0,521	9
<i>Corvus corax</i>	Raven	Corv Corx	0,099	73
<i>Coturnix coturnix</i>	Common quail	Cotr Cotr	0,218	26
<i>Cuculus canorus</i>	Common cuckoo	Cucl Canr	0,177	171
<i>Cyanistes caeruleus</i>	Eurasian blue tit	Cyan Caer	0,025	216
<i>Cygnus olor</i>	Mute swan	Cygn Olor	0,005	18
<i>Dendrocopos major</i>	Great spotted woodpecker	Dend Majr	0,021	182
<i>Dendrocopos minor</i>	Lesser spotted woodpecker	Dend Minr	0,005	12
<i>Dryocopus martius</i>	Black woodpecker	Dryo Mart	0,135	10
<i>Emberiza calandra</i>	Corn bunting	Embr Caln	0,683	367
<i>Emberiza citrinella</i>	Yellowhammer	Embr Citr	0,022	616
<i>Emberiza schoeniclus</i>	Common reed bunting	Embr Scho	0,285	181
<i>Erithacus rubecula</i>	European robin	Erit Rubc	0,030	340
<i>Falco subbuteo</i>	Eurasian hobby	Falc subb	0,564	6
<i>Falco tinnunculus</i>	Common kestrel	Falc Tinn	0,005	112
<i>Ficedula albicollis</i>	Collared flycatcher	Ficd Albc	0,473	2
<i>Ficedula hypoleuca</i>	European pied flycatcher	Ficd Hypl	0,604	4
<i>Fringilla coelebs</i>	Chaffinch	Frin Coel	0,008	312
<i>Fulica atra</i>	Eurasian coot	Fulc Atra	0,226	71
<i>Gallinago gallinago</i>	Common snipe	Gall Gall	0,723	2

<i>Garrulus glandarius</i>	Eurasian jay	Garr Glan	0,067	61
<i>Hippolais icterina</i>	Icterine warbler	Hipp Ictr	0,197	16
<i>Charadrius dubius</i>	Little ringed plover	Char Dubi	0,487	30
<i>Jynx torquilla</i>	Eurasian wryneck	Jynx Torq	0,498	322
<i>Lanius collurio</i>	Red-backed shrike	Lani Coll	0,013	156
<i>Lanius excubitor</i>	Great grey shrike	Lani Excb	0,296	8
<i>Locustella fluviatilis</i>	River warbler	Locs Fluv	0,309	26
<i>Locustella luscinioides</i>	Savi's warbler	Locs Lusc	0,739	22
<i>Locustella naevia</i>	Common grasshopper warbler	Locs Naev	0,266	99
<i>Lophophanes cristatus</i>	European crested tit	Loph Cris	0,005	2
<i>Lullula arborea</i>	Woodlark	Lull arbr	0,785	24
<i>Luscinia svecica cyanecula</i>	Bluethroat	Lus Svc Cy	0,857	56
<i>Luscinia megarhynchos</i>	Common nightingale	Lusc megr	0,572	98
<i>Motacilla alba</i>	White wagtail	Motc Alba	0,010	126
<i>Motacilla flava</i>	Western yellow wagtail	Motc Flav	0,753	15
<i>Muscicapa striata</i>	Spotted flycatcher	Musc stri	0,186	11
<i>Oenanthe oenanthe</i>	Northern wheatear	Oena Oena	0,895	13
<i>Oriolus oriolus</i>	Eurasian golden oriole	Oril Oril	0,396	148
<i>Panurus biarmicus</i>	Bearded reedling	Panr Biar	0,938	4
<i>Parus major</i>	Great tit	Pars Majr	0,005	496
<i>Passer montanus</i>	Eurasian tree sparrow	Pass Mont	0,092	114
<i>Perdix perdix</i>	Grey partridge	Perd Perd	0,280	17
<i>Pernis apivorus</i>	European honey buzzard	Pern Apiv	0,379	1
<i>Periparus ater</i>	Coal tit	Perp Ater	0,005	20

<i>Phasianus colchicus</i>	Common pheasant	Phas Colc	0,193	182
<i>Phoenicurus ochruros</i>	Black redstart	Phoe Ochr	0,005	22
<i>Phoenicurus phoenicurus</i>	Common redstart	Phoe Phoe	0,005	26
<i>Phylloscopus collybita</i>	Common chiffchaff	Phyl Coll	0,061	615
<i>Phylloscopus sibilatrix</i>	Wood warbler	Phyl Sibl	0,217	80
<i>Phylloscopus trochilus</i>	Willow warbler	Phyl Troc	0,123	484
<i>Pica pica</i>	Eurasian magpie	Pica Pica	0,083	16
<i>Picus canus</i>	Grey-headed woodpecker	Pics Cans	0,311	26
<i>Picus viridis</i>	European green woodpecker	Pics Vird	0,209	78
<i>Poecile montanus</i>	Willow tit	Poel Mont	0,361	54
<i>Poecile palustris</i>	Marsh tit	Poel Pals	0,209	50
<i>Prunella modularis</i>	Dunnock	Prun Modl	0,123	138
<i>Pyrrhula pyrrhula</i>	Eurasian bullfinch	Pyrr Pyrr	0,108	4
<i>Rallus aquaticus</i>	Water rail	Rall Aqua	0,554	6
<i>Regulus ignicapillus</i>	Common firecrest	Regl Ignc	0,005	20
<i>Regulus regulus</i>	Goldcrest	Regl Regl	0,005	12
<i>Saxicola rubicola</i>	European stonechat	Saxi Rubc	0,597	162
<i>Saxicola rubetra</i>	Whinchat	Saxi Rubt	0,266	332
<i>Scolopax rusticola</i>	Eurasian woodcock	Scol Rust	0,494	2
<i>Serinus serinus</i>	European serin	Sern Sern	0,393	10
<i>Sitta europaea</i>	Eurasian nuthatch	Sitt Eurp	0,018	75
<i>Streptopelia decaocto</i>	Eurasian collared dove	Strp Dect	0,393	30
<i>Streptopelia turtur</i>	European turtle dove	Strp Turt	0,172	72
<i>Sturnus vulgaris</i>	European starling	Stur Vulg	0,010	158

<i>Sylvia atricapilla</i>	Eurasian blackcap	Sylv Atrc	0,022	758
<i>Sylvia borin</i>	Garden warbler	Sylv Born	0,212	186
<i>Sylvia communis</i>	Common whitethroat	Sylv Comm	0,078	339
<i>Sylvia curruca</i>	Lesser whitethroat	Sylv Curr	0,110	294
<i>Sylvia nisoria</i>	Barred warbler	Sylv Nisr	0,742	66
<i>Tachybaptus ruficollis</i>	Little grebe	Tach Rufc	0,393	57
<i>Troglodytes troglodytes</i>	Eurasian wren	Trog Trog	0,048	54
<i>Turdus merula</i>	Common blackbird	Turd Merl	0,008	634
<i>Turdus philomelos</i>	Song thrush	Turd Phil	0,016	436
<i>Turdus pilaris</i>	Fieldfare	Turd Pils	0,094	11
<i>Turdus viscivorus</i>	Mistle thrush	Turd Visc	0,150	28
<i>Upupa epops</i>	Eurasian hoopoe	Upup Epop	0,930	3
<i>Vanellus Vanellus</i>	Northern lapwing	Vanl Vanl	0,005	9

Table References:

Bejček, V., Hudec, K., & Šťastný, K. (2006). Atlas hnízdního rozšíření ptáků v ČR 2001–2003. Aventinum, Prague.

Šálek, M. (2012). Spontaneous succession on opencast mining sites: implications for bird biodiversity. Journal of Applied Ecology, 49(6), 1417-1425.

Table S2: list of used CORINE LAND COVER classes taken from CLC nomenclature (Feranec 2016), along with derived land use categories employed in our analyses. These derived categories were established mainly to abbreviate our predictor data, as some CLC classes have similar bird communities inhabiting them (e.g. different types of forests) and are managed similarly (e.g. urban fabric and industrial units).

CLC class	CLC subclass 1	CLC subclass 2	Derived category of land use
1. Artificial Surfaces	1.3 Mine, dump and construction sites	1.3.2 Dump sites	Dump site
1. Artificial Surfaces	1.1 Urban fabric	1.1.2 Discontinuous urban fabric	Industrial or urban units
1. Artificial Surfaces	1.2 Industrial, comercial and transport units	1.2.1 Industrial or commercial units	Industrial or urban units
2. Agricultural areas	2.4 Heterogeneous agricultural areas	2.4.3 Land principally occupied by agriculture, with significant areas of natural vegetation	Arable land
2. Agricultural areas	2.1 Arable land	2.1.1 Non-irrigated arable land	Arable land
2. Agricultural areas	2.3 Pastures	2.3.1 Pastures	Pasture
3. Forest and seminatural areas	3.1 Forest	3.1.1 Broad-leaved forest	Forest
3. Forest and seminatural areas	3.1 Forest	3.1.2 Coniferous forest	Forest
3. Forest and seminatural areas	3.1 Forest	3.1.3 Mixed forest	Forest
3. Forest and seminatural areas	3.2 Shrub and/or herbaceous vegetation associations	3.2.4 Transitional woodland/shrub	Transitional

Table References:

Feranec, J., Hazeu, G., Kosztra, B., & Arnold, S. (2016). CORINE land cover nomenclature. In European Landscape Dynamics (pp. 47-56). CRC Press.