

Appendix 2: Table containing all estimations for bird trends during the 2014 – 2023 period. All species are identified through their scientific names. Estimates of mean year effect on abundance and their associated standard errors are provided in the columns “Estimate” and “Standard error”, respectively. These estimates were converted to mean annual growth rate, that can be found in the “Growth rate” column, together with its 95% confidence interval. The corresponding mean percentage of increase (or decrease) over the 2014 – 2023 period is given in the “Percentage of increase/decrease” column, together with their 95% confidence interval. Finally, the p-value associated with the effect of year on abundance and the trend classification obtained for each species can be found in the columns “P-value” and “Trend category”, respectively. NE means no estimation was available due to convergence issue.

Scientific name	Estimate	Standard error	Growth rate	Percentage of increase/decrease	P-value	Trend category
<i>Accipiter nisus</i>	0.0173	0.0132	1.017 [0.991; 1.044]	16.9% [-7.4%; 47.6%]	0.19	Uncertain
<i>Acrocephalus arundinaceus</i>	0.0264	0.0414	1.027 [0.947; 1.113]	26.8% [-38.9%; 163%]	0.524	Uncertain
<i>Acrocephalus palustris</i>	0.0281	0.0271	1.028 [0.975; 1.085]	28.7% [-20.2%; 107.8%]	0.301	Uncertain
<i>Acrocephalus schoenobaenus</i>	0.0468	0.0220	1.048 [1.004; 1.094]	52.4% [3.4%; 124.7%]	0.033	Moderate to strong increase
<i>Acrocephalus scirpaceus</i>	-0.0271	0.0135	0.973 [0.948; 0.999]	-21.7% [-38.2%; -0.7%]	0.044	Moderate decline
<i>Actitis hypoleucos</i>	0.0235	0.0343	1.024 [0.957; 1.095]	23.5% [-32.6%; 126.1%]	0.494	Uncertain
<i>Aegithalos caudatus</i>	0.0073	0.0076	1.007 [0.993; 1.022]	6.8% [-6.5%; 22.1%]	0.334	Stable
<i>Alauda arvensis</i>	-0.0012	0.0030	0.999 [0.993; 1.005]	-1.1% [-6.2%; 4.2%]	0.676	Stable
<i>Alcedo atthis</i>	0.0312	0.0189	1.032 [0.994; 1.071]	32.5% [-5.1%; 84.9%]	0.098	Uncertain
<i>Alectoris rufa</i>	-0.0125	0.0137	0.988 [0.961; 1.014]	-10.6% [-29.9%; 13.8%]	0.362	Stable
<i>Anas platyrhynchos</i>	-0.0005	0.0096	0.999 [0.981; 1.019]	-0.5% [-16%; 18%]	0.956	Stable
<i>Anthus campestris</i>	-0.0400	0.0274	0.961 [0.911; 1.014]	-30.2% [-57%; 13.1%]	0.144	Uncertain
<i>Anthus pratensis</i>	-0.0673	0.0229	0.935 [0.894; 0.978]	-45.4% [-63.6%; -18.2%]	0.003	Moderate to strong decline
<i>Anthus trivialis</i>	-0.0337	0.0059	0.967 [0.956; 0.978]	-26.1% [-33.5%; -18%]	<0.001	Moderate decline
<i>Apus apus</i>	-0.0190	0.0090	0.981 [0.964; 0.999]	-15.7% [-28.2%; -1.2%]	0.035	Moderate decline
<i>Ardea cinerea</i>	0.0131	0.0101	1.013 [0.993; 1.033]	12.5% [-5.8%; 34.5%]	0.194	Uncertain
<i>Athene noctua</i>	0.0627	0.0269	1.065 [1.01; 1.122]	75.9% [9.4%; 182.6%]	0.02	Moderate to strong increase
<i>Aythya fuligula</i>	-0.1355	0.0670	0.873 [0.766; 0.996]	-70.5% [-90.9%; -3.8%]	0.043	Moderate to strong decline
<i>Branta canadensis</i>	0.1507	0.0512	1.163 [1.052; 1.285]	288.2% [57.2%; 858.6%]	0.003	Strong increase
<i>Bubulcus ibis</i>	0.2912	0.0545	1.338 [1.202; 1.489]	1274.4% [425.3%; 3496.2%]	<0.001	Strong increase
<i>Burhinus oedicnemus</i>	0.0035	0.0184	1.004 [0.968; 1.04]	3.2% [-25.4%; 42.7%]	0.849	Uncertain
<i>Buteo buteo</i>	0.0069	0.0041	1.007 [0.999; 1.015]	6.5% [-1%; 14.5%]	0.091	Stable
<i>Carduelis cannabina</i>	0.0404	0.0071	1.041 [1.027; 1.056]	43.8% [26.8%; 63.1%]	<0.001	Moderate to strong increase
<i>Carduelis carduelis</i>	0.0125	0.0048	1.013 [1.003; 1.022]	11.9% [2.7%; 21.8%]	0.01	Moderate increase
<i>Carduelis chloris</i>	-0.0338	0.0047	0.967 [0.958; 0.976]	-26.2% [-32.1%; -19.9%]	<0.001	Moderate decline
<i>Certhia brachydactyla</i>	0.0245	0.0037	1.025 [1.017; 1.032]	24.7% [16.7%; 33.2%]	<0.001	Moderate increase
<i>Certhia familiaris</i>	-0.0042	0.0150	0.996 [0.967; 1.025]	-3.7% [-26%; 25.3%]	0.778	Stable

<i>Cettia cetti</i>	0.0885	0.0132	1.092 [1.065; 1.121]	121.7% [75.8%; 179.6%]	<0.001	Strong increase
<i>Charadrius dubius</i>	-0.0507	0.0557	0.951 [0.852; 1.06]	-36.6% [-76.3%; 69.3%]	0.363	Uncertain
<i>Ciconia ciconia</i>	0.1052	0.0383	1.111 [1.031; 1.198]	157.8% [31.1%; 406.9%]	0.006	Strong increase
<i>Cinclus cinclus</i>	-0.0744	0.0324	0.928 [0.871; 0.989]	-48.8% [-71.1%; -9.3%]	0.022	Moderate to strong decline
<i>Circus aeruginosus</i>	0.0395	0.0199	1.04 [1; 1.082]	42.7% [0.4%; 102.8%]	0.047	Moderate to strong increase
<i>Circus cyaneus</i>	0.0102	0.0176	1.01 [0.976; 1.046]	9.7% [-19.6%; 49.6%]	0.561	Uncertain
<i>Circus pygargus</i>						
<i>Cisticola juncidis</i>	0.1551	0.0185	1.168 [1.126; 1.211]	303.9% [191.2%; 460.2%]	<0.001	Strong increase
<i>Clamator glandarius</i>	-0.1187	0.0925	0.888 [0.741; 1.065]	-65.7% [-93.3%; 75.7%]	0.199	Uncertain
<i>Coccothraustes coccothraustes</i>	0.0081	0.0129	1.008 [0.983; 1.034]	7.6% [-14.3%; 34.9%]	0.529	Uncertain
<i>Columba livia</i>	0.0768	0.0152	1.08 [1.048; 1.112]	99.5% [52.7%; 160.8%]	<0.001	Strong increase
<i>Columba oenas</i>	0.0804	0.0125	1.084 [1.057; 1.111]	106.2% [65.2%; 157.2%]	<0.001	Strong increase
<i>Columba palumbus</i>	0.0354	0.0025	1.036 [1.031; 1.041]	37.5% [31.6%; 43.6%]	<0.001	Strong increase
<i>Corvus corone</i>	0.0039	0.0030	1.004 [0.998; 1.01]	3.6% [-1.8%; 9.2%]	0.197	Stable
<i>Corvus frugilegus</i>	0.0074	0.0210	1.007 [0.967; 1.05]	6.9% [-26.2%; 54.8%]	0.725	Uncertain
<i>Coracias garrulus</i>						
<i>Corvus monedula</i>	0.0732	0.0144	1.076 [1.046; 1.107]	93.2% [49.9%; 149%]	<0.001	Strong increase
<i>Corvus corax</i>	0.0718	0.0189	1.074 [1.035; 1.115]	90.9% [36.9%; 166.3%]	<0.001	Strong increase
<i>Coturnix coturnix</i>	0.0133	0.0124	1.013 [0.989; 1.038]	12.7% [-9.4%; 40.3%]	0.283	Uncertain
<i>Cuculus canorus</i>	-0.0055	0.0035	0.995 [0.988; 1.001]	-4.8% [-10.5%; 1.3%]	0.119	Stable
<i>Cygnus olor</i>	0.0313	0.0285	1.032 [0.976; 1.091]	32.5% [-19.9%; 119.2%]	0.273	Uncertain
<i>Delichon urbicum</i>	0.0158	0.0115	1.016 [0.993; 1.039]	15.3% [-5.9%; 41.1%]	0.17	Uncertain
<i>Dendrocopos major</i>	0.0223	0.0034	1.023 [1.016; 1.029]	22.3% [15.1%; 29.8%]	<0.001	Moderate increase
<i>Dendrocopos medius</i>	0.0678	0.0132	1.07 [1.043; 1.098]	84.1% [45.9%; 132.3%]	<0.001	Strong increase
<i>Dendrocopos minor</i>	0.0520	0.0133	1.053 [1.026; 1.081]	59.7% [26.3%; 101.9%]	<0.001	Moderate to strong increase
<i>Dryocopus martius</i>	0.0391	0.0079	1.04 [1.024; 1.056]	42.1% [23.7%; 63.3%]	<0.001	Moderate to strong increase
<i>Ardea alba</i>	0.1059	0.0425	1.112 [1.023; 1.208]	159.3% [22.5%; 448.9%]	0.013	Moderate to strong increase
<i>Egretta garzetta</i>	0.0291	0.0337	1.03 [0.964; 1.1]	29.9% [-28.3%; 135.5%]	0.388	Uncertain
<i>Emberiza cia</i>	-0.0675	0.0266	0.935 [0.887; 0.985]	-45.6% [-65.9%; -13%]	0.011	Moderate to strong decline

<i>Emberiza cirrus</i>	0.0172	0.0057	1.017 [1.006; 1.029]	16.7% [5.6%; 29%]	0.003	Moderate increase
<i>Emberiza citrinella</i>	-0.0641	0.0049	0.938 [0.929; 0.947]	-43.8% [-48.5%; -38.8%]	<0.001	Strong decline
<i>Emberiza hortulana</i>	-0.1160	0.0568	0.89 [0.797; 0.995]	-64.8% [-87.1%; -4.2%]	0.041	Moderate to strong decline
<i>Emberiza schoeniclus</i>	-0.0529	0.0243	0.948 [0.904; 0.995]	-37.9% [-59.5%; -4.6%]	0.029	Moderate to strong decline
<i>Erithacus rubecula</i>	0.0367	0.0023	1.037 [1.033; 1.042]	39.2% [33.5%; 45%]	<0.001	Strong increase
<i>Falco subbuteo</i>	0.0348	0.0205	1.035 [0.995; 1.078]	36.7% [-4.8%; 96.4%]	0.09	Uncertain
<i>Falco tinnunculus</i>	0.0270	0.0055	1.027 [1.016; 1.039]	27.5% [15.7%; 40.6%]	<0.001	Moderate increase
<i>Ficedula hypoleuca</i>	0.0872	0.0278	1.091 [1.033; 1.152]	119.2% [34.2%; 258.1%]	0.002	Strong increase
<i>Fringilla coelebs</i>	-0.0063	0.0016	0.994 [0.991; 0.997]	-5.5% [-8.1%; -2.8%]	<0.001	Moderate decline
<i>Fulica atra</i>	-0.0526	0.0167	0.949 [0.918; 0.98]	-37.7% [-53.6%; -16.4%]	0.002	Moderate to strong decline
<i>Gallinula chloropus</i>	-0.0271	0.0101	0.973 [0.954; 0.993]	-21.6% [-34.4%; -6.3%]	0.007	Moderate decline
<i>Galerida cristata</i>	0.0002	0.0329	1 [0.938; 1.067]	0.1% [-43.9%; 78.9%]	0.996	Uncertain
<i>Garrulus glandarius</i>	0.0050	0.0034	1.005 [0.998; 1.012]	4.6% [-1.5%; 10.9%]	0.14	Stable
<i>Himantopus himantopus</i>	0.0212	0.0497	1.021 [0.927; 1.126]	21% [-49.7%; 190.9%]	0.67	Uncertain
<i>Hippolais icterina</i>						
<i>Hippolais polyglotta</i>	-0.0112	0.0047	0.989 [0.98; 0.998]	-9.6% [-16.8%; -1.7%]	0.018	Moderate decline
<i>Hirundo rustica</i>	-0.0153	0.0046	0.985 [0.976; 0.994]	-12.9% [-19.7%; -5.5%]	<0.001	Moderate decline
<i>Jynx torquilla</i>	0.0404	0.0123	1.041 [1.016; 1.067]	43.8% [15.7%; 78.6%]	0.001	Moderate to strong increase
<i>Lanius collurio</i>	0.0459	0.0070	1.047 [1.033; 1.061]	51.2% [33.6%; 71%]	<0.001	Strong increase
<i>Lanius senator</i>	-0.0059	0.0417	0.994 [0.916; 1.079]	-5.2% [-54.5%; 97.7%]	0.887	Uncertain
<i>Larus argentatus</i>	0.0143	0.0510	1.014 [0.918; 1.121]	13.7% [-53.7%; 179.5%]	0.779	Uncertain
<i>Larus fuscus</i>						
<i>Larus michahellis</i>	0.0591	0.0502	1.061 [0.961; 1.171]	70.2% [-29.8%; 312.7%]	0.24	Uncertain
<i>Chroicocephalus ridibundus</i>	0.0404	0.0448	1.041 [0.954; 1.137]	43.9% [-34.8%; 217.4%]	0.367	Uncertain
<i>Locustella naevia</i>	-0.0843	0.0192	0.919 [0.885; 0.954]	-53.2% [-66.6%; -34.3%]	<0.001	Strong decline
<i>Lullula arborea</i>	0.0770	0.0066	1.08 [1.066; 1.094]	100% [78.1%; 124.7%]	<0.001	Strong increase
<i>Luscinia megarhynchos</i>	0.0006	0.0031	1.001 [0.995; 1.007]	0.5% [-4.8%; 6.1%]	0.853	Stable
<i>Luscinia svecica</i>						
<i>Merops apiaster</i>	0.1777	0.0505	1.194 [1.082; 1.319]	395% [103%; 1106.8%]	<0.001	Strong increase

<i>Emberiza calandra</i>	0.0504	0.0066	1.052 [1.038; 1.065]	57.3% [39.9%; 76.9%]	<0.001	Strong increase
<i>Milvus migrans</i>	0.0432	0.0079	1.044 [1.028; 1.06]	47.5% [28.3%; 69.5%]	<0.001	Moderate to strong increase
<i>Milvus milvus</i>	0.1139	0.0236	1.121 [1.07; 1.174]	178.8% [83.9%; 322.6%]	<0.001	Strong increase
<i>Motacilla alba</i>	-0.0001	0.0049	1 [0.99; 1.01]	-0.1% [-8.4%; 9%]	0.987	Stable
<i>Motacilla cinerea</i>	0.0354	0.0137	1.036 [1.009; 1.064]	37.6% [8.1%; 75%]	0.009	Moderate to strong increase
<i>Motacilla flava</i>	-0.0042	0.0102	0.996 [0.976; 1.016]	-3.7% [-19.5%; 15.2%]	0.679	Stable
<i>Muscicapa striata</i>	0.0192	0.0147	1.019 [0.991; 1.049]	18.9% [-8.2%; 53.9%]	0.19	Uncertain
<i>Numenius arquata</i>	-0.1167	0.0461	0.89 [0.813; 0.974]	-65% [-84.5%; -21.1%]	0.011	Moderate to strong decline
<i>Oenanthe oenanthe</i>	-0.0449	0.0310	0.956 [0.9; 1.016]	-33.3% [-61.4%; 15.3%]	0.147	Uncertain
<i>Oriolus oriolus</i>	0.0284	0.0045	1.029 [1.02; 1.038]	29.1% [19.4%; 39.7%]	<0.001	Moderate increase
<i>Periparus ater</i>	-0.0605	0.0086	0.941 [0.926; 0.957]	-42% [-50.2%; -32.5%]	<0.001	Strong decline
<i>Cyanistes caeruleus</i>	0.0095	0.0030	1.01 [1.004; 1.016]	9% [3.3%; 14.9%]	0.001	Moderate increase
<i>Lophophanes cristatus</i>	-0.0289	0.0092	0.971 [0.954; 0.989]	-22.9% [-34.4%; -9.4%]	0.002	Moderate decline
<i>Parus major</i>	0.0058	0.0019	1.006 [1.002; 1.01]	5.3% [1.8%; 9%]	0.003	Moderate increase
<i>Parus montanus</i>	-0.0470	0.0233	0.954 [0.911; 0.999]	-34.5% [-56.6%; -1.2%]	0.044	Moderate to strong decline
<i>Poecile palustris</i>	-0.0364	0.0082	0.964 [0.949; 0.98]	-27.9% [-37.7%; -16.7%]	<0.001	Moderate decline
<i>Passer domesticus</i>	0.0367	0.0032	1.037 [1.031; 1.044]	39.1% [31.5%; 47.3%]	<0.001	Strong increase
<i>Passer montanus</i>	-0.1695	0.0232	0.844 [0.807; 0.883]	-78.2% [-85.5%; -67.3%]	<0.001	Strong decline
<i>Pernis apivorus</i>	0.0288	0.0379	1.029 [0.956; 1.109]	29.6% [-33.5%; 152.8%]	0.446	Uncertain
<i>Perdix perdix</i>	-0.0503	0.0140	0.951 [0.925; 0.977]	-36.4% [-50.3%; -18.6%]	<0.001	Moderate to strong decline
<i>Petronia petronia</i>						
<i>Phalacrocorax carbo</i>	0.0923	0.0249	1.097 [1.044; 1.152]	129.6% [47.9%; 256.5%]	<0.001	Strong increase
<i>Phasianus colchicus</i>	0.0092	0.0061	1.009 [0.997; 1.021]	8.7% [-2.4%; 21%]	0.13	Stable
<i>Phoenicurus ochruros</i>	-0.0069	0.0033	0.993 [0.987; 1]	-6% [-11.4%; -0.4%]	0.037	Moderate decline
<i>Phoenicurus phoenicurus</i>	0.0224	0.0071	1.023 [1.009; 1.037]	22.4% [8%; 38.6%]	0.001	Moderate increase
<i>Phylloscopus bonelli</i>	0.0257	0.0108	1.026 [1.005; 1.048]	26% [4.2%; 52.5%]	0.017	Moderate increase
<i>Phylloscopus collybita</i>	-0.0027	0.0019	0.997 [0.994; 1.001]	-2.4% [-5.7%; 1%]	0.169	Stable
<i>Phylloscopus sibilatrix</i>	-0.0270	0.0108	0.973 [0.953; 0.994]	-21.6% [-35.2%; -5.2%]	0.012	Moderate decline
<i>Phylloscopus</i>	-0.0364	0.0130	0.964	-27.9%	0.005	Moderate decline

<i>trochilus</i>			[0.94; 0.989]	[-42.7%; -9.4%]		
<i>Picus canus</i>	0.0006	0.0264	1.001 [0.95; 1.054]	0.6% [-36.9%; 60.2%]	0.981	Uncertain
<i>Pica pica</i>	0.0193	0.0041	1.02 [1.011; 1.028]	19% [10.7%; 28%]	<0.001	Moderate increase
<i>Picus viridis</i>	0.0110	0.0037	1.011 [1.004; 1.018]	10.4% [3.5%; 17.8%]	0.003	Moderate increase
<i>Podiceps cristatus</i>	-0.0401	0.0205	0.961 [0.923; 1]	-30.3% [-51.4%; 0%]	0.05	Uncertain
<i>Prunella modularis</i>	-0.0209	0.0050	0.979 [0.97; 0.989]	-17.1% [-24.1%; -9.6%]	<0.001	Moderate decline
<i>Psittacula krameri</i>	0.1299	0.0286	1.139 [1.077; 1.204]	221.8% [94.2%; 433.3%]	<0.001	Strong increase
<i>Ptyonoprogne rupestris</i>	0.0325	0.0385	1.033 [0.958; 1.114]	34% [-32.1%; 164.4%]	0.399	Uncertain
<i>Pyrrhula pyrrhula</i>	-0.0466	0.0108	0.954 [0.934; 0.975]	-34.3% [-45.7%; -20.4%]	<0.001	Moderate to strong decline
<i>Rallus aquaticus</i>	0.0171	0.0437	1.017 [0.934; 1.108]	16.7% [-46%; 152.2%]	0.695	Uncertain
<i>Regulus ignicapilla</i>	0.0039	0.0056	1.004 [0.993; 1.015]	3.5% [-6.2%; 14.2%]	0.49	Stable
<i>Regulus regulus</i>	-0.0567	0.0082	0.945 [0.93; 0.96]	-40% [-48.1%; -30.6%]	<0.001	Strong decline
<i>Riparia riparia</i>	-0.0426	0.0456	0.958 [0.876; 1.048]	-31.8% [-69.5%; 52.5%]	0.351	Uncertain
<i>Saxicola rubetra</i>	-0.0738	0.0304	0.929 [0.875; 0.986]	-48.5% [-69.9%; -11.9%]	0.015	Moderate to strong decline
<i>Saxicola rubicola</i>	0.0191	0.0053	1.019 [1.009; 1.03]	18.7% [8.2%; 30.3%]	<0.001	Moderate increase
<i>Serinus serinus</i>	0.0144	0.0064	1.015 [1.002; 1.027]	13.8% [1.7%; 27.4%]	0.024	Moderate increase
<i>Sitta europaea</i>	-0.0084	0.0053	0.992 [0.981; 1.002]	-7.3% [-15.5%; 1.8%]	0.115	Stable
<i>Sterna hirundo</i>	0.0152	0.0466	1.015 [0.927; 1.112]	14.6% [-49.6%; 160.5%]	0.745	Uncertain
<i>Strix aluco</i>	-0.0398	0.0222	0.961 [0.92; 1.004]	-30.1% [-52.8%; 3.4%]	0.073	Uncertain
<i>Streptopelia decaocto</i>	-0.0003	0.0031	1 [0.994; 1.006]	-0.3% [-5.6%; 5.2%]	0.91	Stable
<i>Streptopelia turtur</i>	-0.0199	0.0051	0.98 [0.97; 0.99]	-16.4% [-23.6%; -8.5%]	<0.001	Moderate decline
<i>Sturnus vulgaris</i>	0.0438	0.0055	1.045 [1.034; 1.056]	48.4% [34.6%; 63.6%]	<0.001	Strong increase
<i>Sylvia atricapilla</i>	0.0084	0.0017	1.008 [1.005; 1.012]	7.9% [4.8%; 11.1%]	<0.001	Moderate increase
<i>Sylvia borin</i>	-0.0397	0.0065	0.961 [0.949; 0.973]	-30% [-37.6%; -21.6%]	<0.001	Moderate decline
<i>Sylvia cantillans</i>	-0.0038	0.0132	0.996 [0.971; 1.022]	-3.3% [-23.5%; 22.1%]	0.776	Stable
<i>Sylvia communis</i>	-0.0209	0.0038	0.979 [0.972; 0.987]	-17.2% [-22.5%; -11.4%]	<0.001	Moderate decline
<i>Sylvia curruca</i>	-0.0140	0.0140	0.986 [0.959; 1.014]	-11.8% [-31.2%; 12.9%]	0.319	Uncertain
<i>Sylvia hortensis</i>						
<i>Sylvia melanocephala</i>	0.0526	0.0187	1.054 [1.016; 1.093]	60.5% [15.4%; 123.4%]	0.005	Moderate to strong increase

<i>Sylvia undata</i>	0.0066	0.0381	1.007 [0.934; 1.085]	6.1% [-45.9%; 107.9%]	0.863	Uncertain
<i>Tachybaptus ruficollis</i>	-0.0150	0.0281	0.985 [0.932; 1.041]	-12.7% [-46.8%; 43.4%]	0.593	Uncertain
<i>Tadorna tadorna</i>	0.0333	0.0409	1.034 [0.954; 1.12]	35% [-34.4%; 177.5%]	0.415	Uncertain
<i>Tetrax tetrax</i>						
<i>Tringa totanus</i>	-0.0421	0.0952	0.959 [0.796; 1.156]	-31.5% [-87.2%; 267.5%]	0.659	Uncertain
<i>Troglodytes troglodytes</i>	-0.0341	0.0025	0.967 [0.962; 0.971]	-26.4% [-29.5%; -23.1%]	<0.001	Moderate decline