

Appendix 3:

Tables with best models for individual bird species

Note: Models for the Golden-cheeked Warbler (*Setophaga chrysoparia*) and Tennessee Warbler (*Leiothlypis peregrina*) could not be fitted, as stated in the main text.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.6054	0.3132	-8.3175	< 0.0001
Noise Standard Deviation	-0.0160	0.2096	-0.0762	0.9393
PC 1	-0.3465	0.2204	-1.5720	0.1162
PC 2	0.3556	0.1567	2.2696	0.0234
PC 3	0.0741	0.2932	0.2526	0.8006
PC 4	-0.1644	0.1642	-1.0011	0.3169
PC 5	0.0868	0.1801	0.4818	0.6300
PC 6	0.1050	0.3005	0.3495	0.7268
PC 7	0.2130	0.1528	1.3936	0.1637
PC 8	-0.8047	0.3873	-2.0775	0.0380
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	73.4369	249.0000	0.7489	< 0.0001
Year Smooth	0.0007	19.0000	0.0000	0.3630
Station Random Effect	0.0001	7.0000	0.0000	0.8370

Table A3.1: Best productivity model for the Acadian Flycatcher (*Empidonax virescens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.8182	0.2129	-27.3236	< 0.0001
PC 1	0.1128	0.0926	1.2189	0.2230
PC 2	0.1211	0.1220	0.9933	0.3207
PC 3	-0.0489	0.2944	-0.1660	0.8682
PC 4	-0.1536	0.1439	-1.0678	0.2857
PC 5	0.3898	0.1645	2.3701	0.0179
PC 6	0.4306	0.2533	1.7002	0.0892
PC 7	-0.2547	0.1586	-1.6061	0.1084
PC 8	0.1965	0.1273	1.5433	0.1229
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	15.3216	19.0000	3580.1975	< 0.0001
Year Smooth	4.5580	7.0000	51.6030	0.0057
Station Random Effect	197.5729	257.0000	9.0390	< 0.0001

Table A3.2: Best abundance model for the Acadian Flycatcher (*Empidonax virescens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.4605	0.4377	-12.4746	< 0.0001
PC 1	-0.0294	0.2727	-0.1077	0.9142
PC 2	-0.0476	0.3322	-0.1432	0.8861
PC 3	0.0263	0.3658	0.0719	0.9427
PC 4	0.2151	0.3093	0.6954	0.4869
PC 5	0.0735	0.3913	0.1877	0.8511
PC 6	-0.3887	0.3792	-1.0252	0.3054
PC 7	0.1133	0.3527	0.3211	0.7482
PC 8	0.0440	0.4541	0.0969	0.9228
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	140.6609	424.0000	0.5737	< 0.0001
Year Smooth	3.8026	19.0000	123.6690	0.0822
Station Random Effect	5.9106	7.0000	45.6381	0.0585

Table A3.3: Best productivity model for the American Goldfinch (*Spinus tristis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.3278	1.1690	-5.4131	< 0.0001
Noise Level	0.0231	0.0304	0.7576	0.4487
Noise Standard Deviation	-0.1615	0.1671	-0.9661	0.3341
PC 1	0.1727	0.0905	1.9072	0.0566
PC 2	0.2258	0.0794	2.8441	0.0045
PC 3	0.1506	0.1053	1.4303	0.1527
PC 4	-0.2066	0.0650	-3.1805	0.0015
PC 5	-0.2447	0.0804	-3.0427	0.0024
PC 6	0.1136	0.0906	1.2540	0.2099
PC 7	0.1356	0.0775	1.7487	0.0804
PC 8	-0.0539	0.1058	-0.5090	0.6108
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.4968	19.0000	5169.9010	< 0.0001
Year Smooth	5.9262	7.0000	522.0755	< 0.0001
Station Random Effect	346.3808	429.0000	12.5333	< 0.0001

Table A3.4: Best abundance model for the American Goldfinch (*Spinus tristis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	1.2183	1.9011	0.6409	0.5218
Noise Level	-0.0803	0.0504	-1.5927	0.1115
PC 1	0.0304	0.1688	0.1798	0.8573
PC 2	-0.2137	0.1107	-1.9302	0.0539
PC 3	-0.0203	0.2268	-0.0894	0.9288
PC 4	0.0264	0.1167	0.2266	0.8208
PC 5	0.1184	0.1434	0.8254	0.4093
PC 6	0.0006	0.2495	0.0026	0.9980
PC 7	0.1096	0.1290	0.8493	0.3959
PC 8	0.2311	0.2448	0.9441	0.3453
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	71.3130	258.0000	1.0426	< 0.0001
Year Smooth	1.8607	19.0000	3.1724	0.0631
Station Random Effect	1.7293	7.0000	1.5247	0.1378

Table A3.5: Best productivity model for the American Redstart (*Setophaga ruticilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.3482	1.8305	-1.8291	0.0675
Noise Level	-0.0957	0.0473	-2.0216	0.0433
Noise Standard Deviation	0.5576	0.2594	2.1497	0.0317
PC 1	0.1551	0.1573	0.9858	0.3243
PC 2	-0.2293	0.1199	-1.9119	0.0560
PC 3	-0.6612	0.2301	-2.8731	0.0041
PC 4	0.1547	0.1257	1.2312	0.2184
PC 5	0.1730	0.1550	1.1163	0.2644
PC 6	0.4227	0.2245	1.8828	0.0599
PC 7	-0.2754	0.1356	-2.0310	0.0424
PC 8	0.2093	0.2234	0.9371	0.3488
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.8871	19.0000	2557.0681	0.0058
Year Smooth	5.2537	7.0000	103.8002	< 0.0001
Station Random Effect	206.6827	272.0000	10.3051	< 0.0001

Table A3.6: Best abundance model for the American Redstart (*Setophaga ruticilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.3731	0.7286	-4.6295	< 0.0001
Noise Level	0.0522	0.0198	2.6306	0.0086
PC 1	0.0379	0.0598	0.6334	0.5265
PC 2	0.1401	0.0452	3.1016	0.0019
PC 3	0.1095	0.0592	1.8503	0.0644
PC 4	-0.0127	0.0456	-0.2794	0.7800
PC 5	-0.0606	0.0562	-1.0773	0.2814
PC 6	-0.1283	0.0659	-1.9467	0.0517
PC 7	0.0903	0.0556	1.6227	0.1047
PC 8	-0.0481	0.0726	-0.6617	0.5082
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	307.6078	607.0000	2.6698	< 0.0001
Year Smooth	5.4690	19.0000	38.4965	0.0348
Station Random Effect	5.9820	7.0000	12.3412	0.0361

Table A3.7: Best productivity model for the American Robin (*Turdus migratorius*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.7230	0.7946	-7.2026	< 0.0001
Noise Level	0.0116	0.0214	0.5419	0.5879
PC 1	0.2202	0.0614	3.5828	0.0003
PC 2	0.0123	0.0441	0.2795	0.7799
PC 3	-0.1303	0.0568	-2.2952	0.0218
PC 4	-0.0652	0.0447	-1.4590	0.1446
PC 5	-0.0957	0.0548	-1.7483	0.0805
PC 6	-0.0219	0.0604	-0.3631	0.7166
PC 7	-0.0199	0.0550	-0.3614	0.7178
PC 8	-0.0849	0.0679	-1.2495	0.2115
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	14.5356	19.0000	4729.4167	< 0.0001
Year Smooth	5.6922	7.0000	173.0054	< 0.0001
Station Random Effect	506.6956	637.0000	8.5346	< 0.0001

Table A3.8: Best abundance model for the American Robin (*Turdus migratorius*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.6963	0.3776	-7.1402	< 0.0001
PC 1	0.2097	0.1791	1.1706	0.2422
PC 2	0.1713	0.1998	0.8576	0.3915
PC 3	0.0040	0.1332	0.0300	0.9761
PC 4	0.1157	0.1138	1.0166	0.3098
PC 5	0.0110	0.1121	0.0984	0.9216
PC 6	-0.0816	0.1243	-0.6560	0.5121
PC 7	0.1390	0.1792	0.7754	0.4384
PC 8	0.0549	0.2342	0.2345	0.8147
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	55.3676	148.0000	0.8702	< 0.0001
Year Smooth	0.0004	19.0000	0.0000	0.7308
Station Random Effect	5.6358	7.0000	5.3877	0.0392

Table A3.9: Best productivity model for the Ash-throated Flycatcher (*Myiarchus cinerascens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.0511	0.2915	-20.7570	< 0.0001
Noise Standard Deviation	-0.2026	0.1934	-1.0479	0.2949
PC 1	-0.0118	0.1203	-0.0977	0.9222
PC 2	0.0609	0.1425	0.4274	0.6692
PC 3	0.2494	0.0919	2.7154	0.0067
PC 4	-0.2344	0.0870	-2.6949	0.0072
PC 5	-0.2046	0.0829	-2.4669	0.0138
PC 6	-0.0044	0.0863	-0.0510	0.9593
PC 7	-0.0768	0.1312	-0.5855	0.5583
PC 8	0.1848	0.1605	1.1513	0.2499
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.8523	19.0000	74.0664	0.3836
Year Smooth	2.1086	7.0000	1.6268	0.3635
Station Random Effect	101.8911	149.0000	3.6268	< 0.0001

Table A3.10: Best abundance model for the Ash-throated Flycatcher (*Myiarchus cinerascens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.3428	0.3130	-4.2896	< 0.0001
PC 1	0.2268	0.4113	0.5516	0.5813
PC 2	-0.0367	0.2851	-0.1287	0.8976
PC 3	0.0756	0.2027	0.3729	0.7093
PC 4	0.2694	0.3561	0.7567	0.4494
PC 5	0.3612	0.3212	1.1242	0.2611
PC 6	0.1017	0.3067	0.3318	0.7401
PC 7	-0.0366	0.4325	-0.0847	0.9325
PC 8	0.9056	0.9846	0.9198	0.3579
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	68.1433	194.0000	2.3328	< 0.0001
Year Smooth	5.3469	19.0000	14.1368	0.3694
Station Random Effect	4.8053	7.0000	13.1307	< 0.0001

Table A3.11: Best productivity model for the Audubon's Warbler (*Setophaga coronata auduboni*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.1749	0.2760	-22.3736	< 0.0001
Noise Standard Deviation	0.4229	0.2122	1.9927	0.0464
PC 1	-0.5592	0.2361	-2.3685	0.0180
PC 2	-0.1569	0.1680	-0.9338	0.3505
PC 3	-0.1914	0.1223	-1.5657	0.1176
PC 4	-0.0749	0.1790	-0.4182	0.6759
PC 5	0.0359	0.1686	0.2127	0.8316
PC 6	-0.0379	0.1834	-0.2066	0.8364
PC 7	-0.2844	0.2367	-1.2014	0.2297
PC 8	-0.0390	0.4898	-0.0797	0.9365
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.1191	19.0000	1767.6669	0.0016
Year Smooth	4.6043	7.0000	43.4057	< 0.0001
Station Random Effect	153.7531	194.0000	9.1552	< 0.0001

Table A3.12: Best abundance model for the Audubon's Warbler (*Setophaga coronata auduboni*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.1873	0.1012	-1.8505	0.0644
Noise Standard Deviation	-0.1769	0.0955	-1.8513	0.0643
PC 1	0.0603	0.0326	1.8484	0.0647
PC 2	0.0271	0.0412	0.6575	0.5109
PC 3	-0.0277	0.0577	-0.4809	0.6306
PC 4	-0.0650	0.0420	-1.5469	0.1221
PC 5	0.0127	0.0532	0.2380	0.8119
PC 6	0.0837	0.0574	1.4574	0.1452
PC 7	0.0056	0.0478	0.1162	0.9075
PC 8	-0.0227	0.0593	-0.3826	0.7021
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	134.6444	331.0000	1.4308	< 0.0001
Year Smooth	10.0831	19.0000	29.4261	< 0.0001
Station Random Effect	0.0014	7.0000	0.0001	0.4870

Table A3.13: Best productivity model for the Black-capped Chickadee (*Poecile atricapillus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.0465	0.9919	-7.1038	< 0.0001
Noise Level	0.0459	0.0265	1.7322	0.0834
PC 1	0.1359	0.0690	1.9702	0.0489
PC 2	0.1119	0.0572	1.9558	0.0506
PC 3	0.0096	0.0848	0.1127	0.9103
PC 4	-0.0772	0.0541	-1.4276	0.1535
PC 5	-0.0352	0.0683	-0.5153	0.6064
PC 6	-0.1204	0.0831	-1.4481	0.1477
PC 7	-0.0249	0.0648	-0.3835	0.7014
PC 8	-0.0127	0.0788	-0.1608	0.8722
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	14.9680	19.0000	1042.2007	< 0.0001
Year Smooth	3.9038	7.0000	82.2930	< 0.0001
Station Random Effect	263.4399	347.0000	5.5480	< 0.0001

Table A3.14: Best abundance model for the Black-capped Chickadee (*Poecile atricapillus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.0586	0.2002	-10.2847	< 0.0001
PC 1	0.1545	0.1100	1.4040	0.1610
PC 2	-0.0253	0.1437	-0.1761	0.8603
PC 3	0.2652	0.1041	2.5482	0.0112
PC 4	0.1897	0.1373	1.3816	0.1678
PC 5	0.2162	0.1295	1.6702	0.0956
PC 6	-0.0167	0.1118	-0.1495	0.8813
PC 7	0.0870	0.1916	0.4541	0.6500
PC 8	0.0482	0.1754	0.2750	0.7834
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	22.5160	128.0000	0.2599	0.0055
Year Smooth	5.1232	19.0000	2.5231	0.0019
Station Random Effect	5.4445	7.0000	5.2407	0.0003

Table A3.15: Best productivity model for the Black-chinned Hummingbird (*Archilochus alexandri*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.9847	1.4577	-5.4776	< 0.0001
Noise Level	0.0304	0.0397	0.7672	0.4431
PC 1	0.2863	0.1425	2.0089	0.0448
PC 2	0.2334	0.1387	1.6829	0.0927
PC 3	0.1414	0.0996	1.4192	0.1561
PC 4	-0.1509	0.1103	-1.3677	0.1717
PC 5	-0.0919	0.1092	-0.8417	0.4001
PC 6	-0.0481	0.1066	-0.4508	0.6522
PC 7	0.1518	0.1583	0.9591	0.3377
PC 8	-0.0054	0.1736	-0.0308	0.9754
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.8660	19.0000	112.8999	0.0027
Year Smooth	4.6568	7.0000	17.6253	< 0.0001
Station Random Effect	88.4969	149.0000	2.7157	< 0.0001

Table A3.16: Best abundance model for the Black-chinned Hummingbird (*Archilochus alexandri*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	0.0423	0.0894	0.4730	0.6363
PC 1	0.0561	0.0451	1.2436	0.2139
PC 2	0.0448	0.0516	0.8679	0.3856
PC 3	-0.0146	0.0411	-0.3546	0.7229
PC 4	0.0441	0.0350	1.2601	0.2079
PC 5	0.0546	0.0373	1.4617	0.1441
PC 6	0.0223	0.0360	0.6182	0.5366
PC 7	-0.0719	0.0438	-1.6422	0.1008
PC 8	-0.0918	0.0578	-1.5899	0.1121
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	75.8113	222.0000	0.8799	< 0.0001
Year Smooth	8.3592	19.0000	10.7069	0.0001
Station Random Effect	0.0011	7.0000	0.0000	0.7215

Table A3.17: Best productivity model for the Bewick's Wren (*Thryomanes bewickii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.2381	1.1159	-6.4866	< 0.0001
Noise Level	0.0359	0.0301	1.1924	0.2333
PC 1	0.4829	0.0991	4.8717	< 0.0001
PC 2	0.5611	0.0878	6.3939	< 0.0001
PC 3	0.2051	0.0771	2.6583	0.0079
PC 4	-0.1392	0.0735	-1.8942	0.0584
PC 5	0.0286	0.0767	0.3729	0.7093
PC 6	-0.0979	0.0751	-1.3047	0.1922
PC 7	0.0060	0.0996	0.0604	0.9518
PC 8	-0.2243	0.0961	-2.3336	0.0197
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.6171	19.0000	1291.7416	0.0064
Year Smooth	6.3564	7.0000	50.2081	0.0035
Station Random Effect	190.2886	246.0000	6.3088	< 0.0001

Table A3.18: Best abundance model for the Bewick's Wren (*Thryomanes bewickii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.5978	1.2746	-2.8225	0.0048
Noise Level	0.0402	0.0365	1.1031	0.2701
Noise Standard Deviation	0.2941	0.1724	1.7056	0.0883
PC 1	0.0092	0.1225	0.0749	0.9403
PC 2	-0.1386	0.0977	-1.4193	0.1560
PC 3	0.1209	0.0854	1.4161	0.1569
PC 4	-0.0382	0.1013	-0.3772	0.7061
PC 5	0.0696	0.1125	0.6189	0.5361
PC 6	-0.0656	0.1016	-0.6455	0.5187
PC 7	0.0146	0.1505	0.0972	0.9226
PC 8	0.0552	0.2425	0.2278	0.8199
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	147.4505	336.0000	1.8884	< 0.0001
Year Smooth	8.7913	19.0000	126.5078	0.0001
Station Random Effect	4.3344	7.0000	9.6514	0.0044

Table A3.19: Best productivity model for the Black-headed Grosbeak (*Pheucticus melanocephalus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.6345	0.1587	-35.5058	< 0.0001
Noise Standard Deviation	0.2087	0.1492	1.3990	0.1619
PC 1	-0.0236	0.0786	-0.3004	0.7639
PC 2	0.2273	0.0807	2.8155	0.0049
PC 3	0.1081	0.0697	1.5498	0.1213
PC 4	-0.2049	0.0787	-2.6021	0.0093
PC 5	-0.0296	0.0858	-0.3443	0.7306
PC 6	-0.0164	0.0811	-0.2020	0.8399
PC 7	-0.0212	0.1187	-0.1786	0.8583
PC 8	-0.2684	0.1986	-1.3511	0.1768
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	5.6946	19.0000	501.6604	0.0354
Year Smooth	4.9862	7.0000	49.4116	0.0001
Station Random Effect	284.4565	339.0000	9.7032	< 0.0001

Table A3.20: Best abundance model for the Black-headed Grosbeak (*Pheucticus melanocephalus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	241.9885	849.1624	0.2850	0.7767
PC 1	5.8962	78.0746	0.0755	0.9401
PC 2	344.0676	731.9009	0.4701	0.6400
PC 3	760.4124	1812.7817	0.4195	0.6764
PC 4	85.5022	247.2369	0.3458	0.7307
PC 5	-172.8094	414.9852	-0.4164	0.6786
PC 6	-493.8407	1187.9236	-0.4157	0.6792
PC 7	224.7659	536.4689	0.4190	0.6768
PC 8	-83.1538	179.9530	-0.4621	0.6458
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	2.6753	11.0000	0.5260	0.0573
Year Smooth	0.0000	12.0000	0.0000	1.0000
Station Random Effect	2.4670	7.0000	1.5394	0.0150

Table A3.21: Best productivity model for the Bobolink (*Dolichonyx oryzivorus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-61.6408	17.3759	-3.5475	0.0006
Noise Level	0.3970	0.1865	2.1292	0.0356
PC 1	5.3710	3.4004	1.5795	0.1173
PC 2	-9.9407	4.4909	-2.2135	0.0291
PC 3	-45.2715	17.1151	-2.6451	0.0094
PC 4	-8.3728	2.7242	-3.0736	0.0027
PC 5	9.7500	3.4113	2.8581	0.0052
PC 6	31.3942	11.9804	2.6205	0.0101
PC 7	-14.0158	5.6204	-2.4937	0.0142
PC 8	-0.6568	2.4184	-0.2716	0.7865
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0000	15.0000	0.0000	0.1009
Year Smooth	1.3381	7.0000	1.6193	0.0006
Station Random Effect	0.0124	13.0000	0.0014	0.1532

Table A3.22: Best abundance model for the Bobolink (*Dolichonyx oryzivorus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.1415	0.0832	-1.7000	0.0896
PC 1	0.0873	0.0407	2.1454	0.0322
PC 2	0.0783	0.0504	1.5531	0.1208
PC 3	-0.0572	0.0469	-1.2189	0.2233
PC 4	-0.0488	0.0395	-1.2353	0.2171
PC 5	0.1060	0.0424	2.5017	0.0126
PC 6	0.0787	0.0449	1.7538	0.0799
PC 7	0.0210	0.0512	0.4099	0.6820
PC 8	0.0278	0.0525	0.5301	0.5962
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	37.7975	191.0000	0.3895	< 0.0001
Year Smooth	5.2956	19.0000	8.3461	< 0.0001
Station Random Effect	4.5758	7.0000	4.6005	0.0131

Table A3.23: Best productivity model for the Bushtit (*Psaltriparus minimus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.3768	1.1303	-7.4112	< 0.0001
Noise Level	0.0684	0.0312	2.1926	0.0285
Noise Standard Deviation	-0.1036	0.1795	-0.5771	0.5640
PC 1	0.2336	0.0989	2.3619	0.0183
PC 2	0.2296	0.0892	2.5735	0.0102
PC 3	0.1533	0.0858	1.7868	0.0742
PC 4	-0.0796	0.0813	-0.9792	0.3276
PC 5	-0.0371	0.0870	-0.4261	0.6701
PC 6	-0.1292	0.0919	-1.4053	0.1601
PC 7	-0.2308	0.1139	-2.0263	0.0429
PC 8	-0.2197	0.1025	-2.1446	0.0321
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	9.3771	19.0000	78.1211	0.0150
Year Smooth	2.9076	7.0000	23.0472	0.0002
Station Random Effect	136.9324	205.0000	3.3576	< 0.0001

Table A3.24: Best abundance model for the Bushtit (*Psaltriparus minimus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.4361	1.2832	-2.6777	0.0077
Noise Standard Deviation	-0.2245	0.4662	-0.4816	0.6303
PC 1	-0.4102	0.5143	-0.7975	0.4256
PC 2	-1.2898	0.8106	-1.5912	0.1123
PC 3	0.3199	0.6629	0.4825	0.6297
PC 4	-2.8095	2.0674	-1.3589	0.1749
PC 5	3.5520	1.9252	1.8451	0.0657
PC 6	-2.0730	1.0577	-1.9599	0.0507
PC 7	0.5724	1.7781	0.3219	0.7477
PC 8	-0.7182	1.3832	-0.5192	0.6039
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	26.5768	80.0000	0.5908	0.0020
Year Smooth	0.0004	19.0000	0.0000	0.9825
Station Random Effect	4.5409	7.0000	4.2274	0.0158

Table A3.25: Best productivity model for the Cassin's Finch (*Haemorhous cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.5465	0.3422	-19.1321	< 0.0001
PC 1	0.3351	0.3712	0.9029	0.3668
PC 2	-0.4436	0.3098	-1.4322	0.1524
PC 3	0.0436	0.2310	0.1887	0.8504
PC 4	-0.0458	0.5648	-0.0811	0.9354
PC 5	0.7401	0.5583	1.3257	0.1852
PC 6	-0.5035	0.3503	-1.4374	0.1509
PC 7	0.2221	0.5686	0.3906	0.6962
PC 8	0.0186	0.9722	0.0192	0.9847
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	8.8941	19.0000	119.6817	0.0174
Year Smooth	3.9498	7.0000	3.5014	0.0035
Station Random Effect	56.9732	85.0000	3.5740	< 0.0001

Table A3.26: Best abundance model for the Cassin's Finch (*Haemorhous cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.5683	0.7437	-2.1088	0.0351
Noise Level	0.0286	0.0184	1.5566	0.1197
Noise Standard Deviation	-0.1584	0.1130	-1.4025	0.1609
PC 1	-0.1938	0.0690	-2.8063	0.0051
PC 2	0.0139	0.0563	0.2473	0.8047
PC 3	-0.0697	0.0882	-0.7905	0.4293
PC 4	-0.0126	0.0642	-0.1957	0.8449
PC 5	-0.0067	0.0732	-0.0915	0.9271
PC 6	0.0965	0.0782	1.2348	0.2170
PC 7	-0.0973	0.0654	-1.4867	0.1373
PC 8	-0.2501	0.1030	-2.4289	0.0152
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	143.4443	332.0000	1.3249	< 0.0001
Year Smooth	5.5145	19.0000	10.3885	0.0025
Station Random Effect	1.6470	7.0000	3.2895	0.0063

Table A3.27: Best productivity model for the Carolina Wren (*Thryothorus ludovicianus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.5026	0.9000	-9.4472	< 0.0001
Noise Level	0.0759	0.0225	3.3729	0.0008
PC 1	0.1038	0.0711	1.4595	0.1445
PC 2	0.1131	0.0638	1.7725	0.0764
PC 3	-0.3183	0.1162	-2.7392	0.0062
PC 4	0.0567	0.0807	0.7021	0.4827
PC 5	-0.0184	0.0918	-0.2007	0.8410
PC 6	0.1792	0.0943	1.9001	0.0575
PC 7	-0.0515	0.0828	-0.6225	0.5336
PC 8	-0.1126	0.0824	-1.3665	0.1719
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.2227	19.0000	1506.1239	< 0.0001
Year Smooth	5.6918	7.0000	78.4667	< 0.0001
Station Random Effect	264.6517	366.0000	3.9928	< 0.0001

Table A3.28: Best abundance model for the Carolina Wren (*Thryothorus ludovicianus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	2.8389	5.7203	0.4963	0.6199
Noise Level	-0.2942	0.1374	-2.1417	0.0327
Noise Standard Deviation	0.8211	0.3571	2.2995	0.0219
PC 1	-7.2553	5.6719	-1.2792	0.2014
PC 2	3.5619	3.2105	1.1095	0.2677
PC 3	-1.1850	0.8750	-1.3543	0.1762
PC 4	-1.7115	1.3297	-1.2872	0.1986
PC 5	0.9505	0.6820	1.3937	0.1640
PC 6	1.3344	1.3052	1.0224	0.3071
PC 7	1.0495	0.8561	1.2259	0.2208
PC 8	-11.5740	7.4724	-1.5489	0.1220
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	41.7476	129.0000	0.9929	< 0.0001
Year Smooth	6.3003	19.0000	15.8998	0.1600
Station Random Effect	1.6528	7.0000	0.5214	0.2043

Table A3.29: Best productivity model for the Cassin's Vireo (*Vireo cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.5487	2.9299	-1.5525	0.1208
Noise Level	-0.0706	0.0829	-0.8514	0.3947
PC 1	-0.1157	0.3035	-0.3811	0.7032
PC 2	-0.0338	0.1952	-0.1730	0.8627
PC 3	0.1723	0.1649	1.0450	0.2962
PC 4	-0.1234	0.1968	-0.6270	0.5308
PC 5	-0.0202	0.1998	-0.1012	0.9194
PC 6	-0.1801	0.1815	-0.9919	0.3214
PC 7	-0.4093	0.2960	-1.3827	0.1670
PC 8	-0.4566	0.5082	-0.8984	0.3691
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	4.3253	19.0000	75.2618	0.3160
Year Smooth	4.0510	7.0000	10.2045	0.0001
Station Random Effect	116.4088	146.0000	8.2133	< 0.0001

Table A3.30: Best abundance model for the Cassin's Vireo (*Vireo cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.2426	3.5839	-1.7419	0.0818
Noise Level	0.0548	0.0945	0.5805	0.5617
Noise Standard Deviation	0.1575	0.5742	0.2742	0.7840
PC 1	-0.2935	0.3832	-0.7661	0.4438
PC 2	0.1534	0.2735	0.5608	0.5751
PC 3	0.1695	0.2980	0.5689	0.5696
PC 4	-0.0470	0.2094	-0.2244	0.8225
PC 5	-0.0233	0.2797	-0.0834	0.9335
PC 6	0.2029	0.3428	0.5920	0.5540
PC 7	0.0556	0.2467	0.2254	0.8217
PC 8	-0.0624	0.6243	-0.0999	0.9204
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	108.8276	284.0000	0.7956	< 0.0001
Year Smooth	0.0023	19.0000	0.0001	0.6026
Station Random Effect	4.3043	7.0000	18.0158	0.0956

Table A3.31: Best productivity model for the Cedar Waxwing (*Bombycilla cedrorum*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.8835	1.5092	-4.5611	< 0.0001
Noise Level	0.0238	0.0403	0.5897	0.5555
Noise Standard Deviation	0.0436	0.2136	0.2040	0.8384
PC 1	0.0630	0.1181	0.5334	0.5938
PC 2	0.2728	0.0891	3.0608	0.0022
PC 3	0.0504	0.1270	0.3968	0.6915
PC 4	-0.0523	0.0798	-0.6554	0.5122
PC 5	0.0511	0.1046	0.4888	0.6250
PC 6	0.1410	0.1343	1.0505	0.2936
PC 7	-0.0541	0.0955	-0.5664	0.5712
PC 8	0.1476	0.1469	1.0048	0.3151
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.8692	19.0000	1070.3742	0.0004
Year Smooth	3.9320	7.0000	99.4260	< 0.0001
Station Random Effect	210.4918	284.0000	5.6006	< 0.0001

Table A3.32: Best abundance model for the Cedar Waxwing (*Bombycilla cedrorum*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.8152	0.2633	-6.8932	< 0.0001
Noise Standard Deviation	0.1101	0.2096	0.5254	0.5994
PC 1	-0.0261	0.2181	-0.1199	0.9046
PC 2	-0.0327	0.1599	-0.2044	0.8381
PC 3	0.1414	0.1017	1.3897	0.1649
PC 4	-0.2262	0.1461	-1.5488	0.1217
PC 5	0.0685	0.1453	0.4714	0.6374
PC 6	0.0753	0.1499	0.5024	0.6155
PC 7	0.0026	0.1784	0.0144	0.9885
PC 8	-0.2438	0.3749	-0.6503	0.5156
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	100.3499	294.0000	0.8624	< 0.0001
Year Smooth	0.0004	19.0000	0.0000	1.0000
Station Random Effect	4.3460	7.0000	3.9805	0.2584

Table A3.33: Best productivity model for the Chipping Sparrow (*Spizella passerina*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.7767	1.5386	-3.1046	0.0019
Noise Level	-0.0579	0.0429	-1.3494	0.1773
Noise Standard Deviation	0.3523	0.2037	1.7300	0.0837
PC 1	-0.2199	0.1844	-1.1927	0.2331
PC 2	-0.0508	0.1343	-0.3781	0.7054
PC 3	0.1205	0.1154	1.0443	0.2964
PC 4	-0.0663	0.1164	-0.5701	0.5687
PC 5	0.0493	0.1218	0.4050	0.6855
PC 6	0.2667	0.1381	1.9313	0.0535
PC 7	0.1031	0.1516	0.6798	0.4967
PC 8	0.0634	0.3245	0.1954	0.8451
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	3.3000	19.0000	115.5005	0.1835
Year Smooth	4.8780	7.0000	74.0300	< 0.0001
Station Random Effect	245.6036	313.0000	8.5210	< 0.0001

Table A3.34: Best abundance model for the Chipping Sparrow (*Spizella passerina*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.5023	0.0509	-29.4905	< 0.0001
PC 1	0.0427	0.0407	1.0482	0.2946
PC 2	0.1201	0.0435	2.7610	0.0058
PC 3	-0.0597	0.0625	-0.9556	0.3394
PC 4	-0.0039	0.0370	-0.1054	0.9161
PC 5	0.0259	0.0424	0.6108	0.5414
PC 6	0.0029	0.0570	0.0502	0.9600
PC 7	-0.0647	0.0397	-1.6290	0.1034
PC 8	0.0182	0.0779	0.2337	0.8153
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	196.4300	589.0000	1.4030	< 0.0001
Year Smooth	12.8385	19.0000	264.7959	< 0.0001
Station Random Effect	4.6787	7.0000	2.8846	0.3412

Table A3.35: Best productivity model for the Common Yellowthroat (*Geothlypis trichas*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.2324	1.0356	-6.0180	< 0.0001
Noise Level	0.0246	0.0270	0.9116	0.3620
PC 1	0.0881	0.0835	1.0550	0.2915
PC 2	0.2965	0.0707	4.1941	< 0.0001
PC 3	0.0797	0.0954	0.8361	0.4031
PC 4	-0.0710	0.0613	-1.1594	0.2464
PC 5	-0.0701	0.0697	-1.0066	0.3142
PC 6	0.0306	0.0833	0.3680	0.7129
PC 7	0.0382	0.0683	0.5594	0.5759
PC 8	0.0919	0.1089	0.8436	0.3989
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.1816	19.0000	30975.2207	< 0.0001
Year Smooth	6.1323	7.0000	1614.8061	< 0.0001
Station Random Effect	513.7181	608.0000	17.2780	< 0.0001

Table A3.36: Best abundance model for the Common Yellowthroat (*Geothlypis trichas*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	0.8116	1.4555	0.5576	0.5772
Noise Level	-0.0396	0.0415	-0.9546	0.3399
PC 1	0.1964	0.1807	1.0869	0.2773
PC 2	-0.1623	0.1507	-1.0765	0.2819
PC 3	0.0534	0.1206	0.4427	0.6581
PC 4	-0.4297	0.2722	-1.5785	0.1147
PC 5	0.5889	0.3240	1.8173	0.0694
PC 6	-0.3108	0.1999	-1.5544	0.1203
PC 7	0.7529	0.2551	2.9508	0.0032
PC 8	0.1370	0.3321	0.4126	0.6799
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	87.3808	166.0000	4.8069	< 0.0001
Year Smooth	1.5232	19.0000	13.5513	0.0592
Station Random Effect	4.1431	7.0000	10.0300	0.0002

Table A3.37: Best productivity model for the Dark-eyed Junco (*Junco hyemalis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.5723	0.1962	-28.4078	< 0.0001
PC 1	-0.6625	0.2017	-3.2848	0.0010
PC 2	-0.5440	0.1931	-2.8164	0.0049
PC 3	-0.2985	0.1707	-1.7484	0.0805
PC 4	-0.3588	0.2853	-1.2576	0.2087
PC 5	0.5446	0.3487	1.5619	0.1185
PC 6	-0.5210	0.2387	-2.1829	0.0292
PC 7	-0.4009	0.3236	-1.2390	0.2155
PC 8	-0.1320	0.4350	-0.3034	0.7616
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	8.7611	19.0000	8632.7063	0.0007
Year Smooth	4.1625	7.0000	80.8565	< 0.0001
Station Random Effect	148.2819	186.0000	12.8068	< 0.0001

Table A3.38: Best abundance model for the Dark-eyed Junco (*Junco hyemalis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.1962	2.4734	-0.4836	0.6288
Noise Level	-0.0416	0.0727	-0.5717	0.5677
PC 1	-0.2133	0.4730	-0.4509	0.6521
PC 2	0.0129	0.3045	0.0424	0.9662
PC 3	-0.1553	0.1713	-0.9063	0.3650
PC 4	0.1478	0.3015	0.4902	0.6241
PC 5	0.3208	0.2524	1.2708	0.2041
PC 6	0.2181	0.2133	1.0224	0.3068
PC 7	-0.0591	0.3036	-0.1948	0.8456
PC 8	-0.4577	0.8653	-0.5290	0.5969
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	46.6119	174.0000	0.7285	< 0.0001
Year Smooth	0.0019	19.0000	0.0001	0.6193
Station Random Effect	0.0012	7.0000	0.0001	0.5061

Table A3.39: Best productivity model for the Dusky Flycatcher (*Empidonax oberholseri*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.6109	2.3117	-1.5620	0.1185
Noise Level	-0.0735	0.0673	-1.0925	0.2748
PC 1	-0.2475	0.2661	-0.9302	0.3524
PC 2	-0.2639	0.2016	-1.3090	0.1907
PC 3	0.1465	0.1503	0.9742	0.3301
PC 4	-0.0026	0.2111	-0.0123	0.9902
PC 5	-0.0516	0.1823	-0.2830	0.7772
PC 6	-0.1897	0.1919	-0.9887	0.3230
PC 7	-0.0185	0.3109	-0.0595	0.9526
PC 8	0.0709	0.5260	0.1348	0.8928
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	6.1217	19.0000	760.8768	0.1128
Year Smooth	1.7281	7.0000	6.9451	0.0008
Station Random Effect	140.6265	176.0000	10.7241	< 0.0001

Table A3.40: Best abundance model for the Dusky Flycatcher (*Empidonax oberholseri*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients				
	Estimate	Std. Error	t-value	p-value
Intercept	0.2517	0.3271	0.7695	0.4422
Noise Standard Deviation	-0.7839	0.3766	-2.0813	0.0382
PC 1	-0.0791	0.2787	-0.2836	0.7769
PC 2	0.1828	0.2052	0.8909	0.3737
PC 3	0.2305	0.1362	1.6927	0.0915
PC 4	0.1135	0.1688	0.6724	0.5019
PC 5	-0.0620	0.2204	-0.2811	0.7788
PC 6	0.0085	0.1727	0.0491	0.9608
PC 7	0.0381	0.1481	0.2571	0.7972
PC 8	-0.2513	0.4443	-0.5656	0.5721
B. smooth terms				
	edf	Ref.df	F-value	p-value
Location Smooth	38.6779	122.0000	0.8640	< 0.0001
Year Smooth	0.0002	19.0000	0.0000	0.7764
Station Random Effect	1.4025	7.0000	1.1520	0.0644

Table A3.41: Best productivity model for the Eastern Bluebird (*Sialia sialis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.9718	0.3563	-19.5662	< 0.0001
Noise Standard Deviation	-0.2963	0.3573	-0.8293	0.4071
PC 1	0.2960	0.3056	0.9684	0.3331
PC 2	0.0955	0.2236	0.4272	0.6693
PC 3	0.1264	0.1811	0.6981	0.4852
PC 4	0.0292	0.2249	0.1298	0.8968
PC 5	-0.1168	0.2707	-0.4315	0.6662
PC 6	0.1156	0.2161	0.5351	0.5927
PC 7	0.0696	0.1939	0.3588	0.7198
PC 8	0.0447	0.4955	0.0903	0.9281
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0003	19.0000	0.0000	0.7622
Year Smooth	5.3904	7.0000	14.8540	0.0085
Station Random Effect	100.6254	142.0000	2.8797	< 0.0001

Table A3.42: Best abundance model for the Eastern Bluebird (*Sialia sialis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2972.7913	61676288.1524	-0.0000	1.0000
Noise Level	0.6374	0.4846	1.3155	0.1903
Noise Standard Deviation	-0.2319	0.9485	-0.2445	0.8072
PC 1	572.0390	12277144.3986	0.0000	1.0000
PC 2	-819.1095	17366174.7207	-0.0000	1.0000
PC 3	-3322.2675	69808776.8317	-0.0000	1.0000
PC 4	-523.2120	10931472.7711	-0.0000	1.0000
PC 5	649.8152	13670888.4804	0.0000	1.0000
PC 6	2331.5805	48967916.2447	0.0000	1.0000
PC 7	-1097.7646	23107693.2602	-0.0000	1.0000
PC 8	220.6682	4913826.2778	0.0000	1.0000
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0000	15.0000	0.0000	0.1222
Year Smooth	0.0000	7.0000	0.0000	0.5340
Station Random Effect	3.3106	15.0000	0.4425	0.0327

Table A3.43: Best abundance model for the Eastern Meadowlark (*Sturnella magna*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.5060	9.8321	-0.8651	0.3879
Noise Level	0.2070	0.2235	0.9263	0.3553
Noise Standard Deviation	-0.4910	0.8288	-0.5925	0.5542
PC 1	1.7284	11.8125	0.1463	0.8838
PC 2	-1.2648	6.7869	-0.1864	0.8523
PC 3	0.4197	1.8143	0.2313	0.8173
PC 4	-1.2980	2.8948	-0.4484	0.6543
PC 5	2.3741	2.1446	1.1070	0.2695
PC 6	-1.3798	3.0971	-0.4455	0.6564
PC 7	0.7407	1.8055	0.4102	0.6820
PC 8	3.5497	16.8204	0.2110	0.8331
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.4441	58.0000	0.6277	< 0.0001
Year Smooth	0.0001	19.0000	0.0000	0.6218
Station Random Effect	0.0000	7.0000	0.0000	1.0000

Table A3.44: Best productivity model for the Evening Grosbeak (*Coccothraustes vespertinus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.6580	6.5219	-1.1742	0.2406
Noise Standard Deviation	0.4699	0.5605	0.8384	0.4020
PC 1	0.5929	11.8231	0.0502	0.9600
PC 2	-1.2578	6.7572	-0.1861	0.8524
PC 3	0.5714	1.7883	0.3195	0.7494
PC 4	0.5402	2.5070	0.2155	0.8294
PC 5	-0.1425	1.1389	-0.1251	0.9005
PC 6	-0.1953	2.8658	-0.0681	0.9457
PC 7	-0.3825	1.4461	-0.2645	0.7914
PC 8	2.1182	15.8795	0.1334	0.8939
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0012	19.0000	0.0000	0.8365
Year Smooth	5.5842	7.0000	19.4798	< 0.0001
Station Random Effect	45.5433	61.0000	7.7654	< 0.0001

Table A3.45: Best abundance model for the Evening Grosbeak (*Coccothraustes vespertinus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.9585	1.6813	-3.5441	0.0004
Noise Standard Deviation	1.0216	1.7252	0.5922	0.5539
PC 1	-0.1685	0.8455	-0.1994	0.8420
PC 2	0.2537	0.8307	0.3054	0.7602
PC 3	0.2254	0.8466	0.2663	0.7901
PC 4	-0.1467	1.1013	-0.1332	0.8941
PC 5	0.3846	1.2851	0.2993	0.7648
PC 6	-0.3905	0.9912	-0.3939	0.6937
PC 7	0.5423	0.9002	0.6024	0.5471
PC 8	-0.6178	1.7002	-0.3634	0.7164
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	105.2900	261.0000	0.3022	0.9917
Year Smooth	0.0000	19.0000	0.0000	1.0000
Station Random Effect	6.6562	7.0000	81.8866	0.3197

Table A3.46: Best productivity model for the Great Crested Flycatcher (*Myiarchus crinitus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.1106	1.2350	-4.1380	< 0.0001
Noise Level	-0.0479	0.0312	-1.5329	0.1254
PC 1	0.2517	0.0895	2.8107	0.0050
PC 2	0.1454	0.0793	1.8343	0.0667
PC 3	0.0631	0.1375	0.4586	0.6466
PC 4	0.1091	0.1016	1.0736	0.2831
PC 5	-0.1393	0.1155	-1.2063	0.2278
PC 6	0.2013	0.1049	1.9191	0.0551
PC 7	-0.0392	0.0920	-0.4256	0.6704
PC 8	0.0139	0.0942	0.1479	0.8824
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.8623	19.0000	77.0680	< 0.0001
Year Smooth	0.0008	7.0000	0.0000	0.8331
Station Random Effect	168.0046	272.0000	2.2700	< 0.0001

Table A3.47: Best abundance model for the Great Crested Flycatcher (*Myiarchus crinitus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.8355	0.4623	-1.8073	0.0712
PC 1	-1.0513	0.4999	-2.1030	0.0359
PC 2	0.2179	0.4007	0.5437	0.5868
PC 3	0.1258	0.3140	0.4008	0.6887
PC 4	0.0010	0.4563	0.0021	0.9983
PC 5	-0.5405	0.5340	-1.0122	0.3119
PC 6	-0.3590	0.4527	-0.7931	0.4280
PC 7	0.9127	0.3654	2.4978	0.0128
PC 8	-1.8630	0.8824	-2.1112	0.0352
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	46.1816	117.0000	2.5648	< 0.0001
Year Smooth	2.1210	19.0000	3.1654	0.2438
Station Random Effect	4.2618	7.0000	9.2539	< 0.0001

Table A3.48: Best productivity model for the Golden-crowned Kinglet (*Regulus satrapa*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.4683	0.4529	-16.4884	< 0.0001
Noise Standard Deviation	0.6425	0.3475	1.8487	0.0647
PC 1	0.1183	0.4118	0.2872	0.7740
PC 2	-0.2743	0.2894	-0.9478	0.3434
PC 3	-0.2361	0.2720	-0.8678	0.3856
PC 4	0.2053	0.3143	0.6531	0.5137
PC 5	-0.1312	0.3391	-0.3871	0.6988
PC 6	-0.3887	0.3549	-1.0953	0.2735
PC 7	0.0019	0.2724	0.0068	0.9946
PC 8	-0.0088	0.8371	-0.0105	0.9917
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.8307	19.0000	1354.6830	0.0002
Year Smooth	4.3945	7.0000	7.4189	< 0.0001
Station Random Effect	94.9795	138.0000	6.5432	< 0.0001

Table A3.49: Best abundance model for the Golden-crowned Kinglet (*Regulus satrapa*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.6069	0.1368	-11.7450	< 0.0001
Noise Standard Deviation	0.1922	0.1211	1.5878	0.1125
PC 1	0.0843	0.0409	2.0608	0.0395
PC 2	0.0379	0.0532	0.7128	0.4761
PC 3	0.1388	0.0935	1.4839	0.1380
PC 4	-0.1065	0.0608	-1.7516	0.0800
PC 5	0.0308	0.0736	0.4187	0.6755
PC 6	0.0095	0.0794	0.1201	0.9044
PC 7	0.0947	0.0653	1.4502	0.1472
PC 8	-0.0617	0.0615	-1.0023	0.3163
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	166.4613	387.0000	2.8805	< 0.0001
Year Smooth	4.8990	19.0000	68.1787	0.0146
Station Random Effect	1.1626	7.0000	4.1632	0.0679

Table A3.50: Best productivity model for the Gray Catbird (*Dumetella carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.9919	0.1876	-26.6020	< 0.0001
Noise Standard Deviation	0.2173	0.1823	1.1921	0.2333
PC 1	0.2967	0.0649	4.5699	< 0.0001
PC 2	0.2130	0.0840	2.5353	0.0113
PC 3	0.2540	0.1321	1.9231	0.0546
PC 4	-0.3250	0.1004	-3.2363	0.0012
PC 5	0.0183	0.1166	0.1567	0.8755
PC 6	0.0631	0.1229	0.5131	0.6079
PC 7	0.2366	0.1015	2.3312	0.0198
PC 8	-0.0015	0.1095	-0.0133	0.9894
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	14.8522	19.0000	33031.6034	< 0.0001
Year Smooth	5.0077	7.0000	482.4494	< 0.0001
Station Random Effect	324.9407	395.0000	16.5162	< 0.0001

Table A3.51: Best abundance model for the Gray Catbird (*Dumetella carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1977.5077	28085588.9940	-0.0001	0.9999
Noise Level	0.0949	0.2724	0.3485	0.7281
Noise Standard Deviation	-0.7480	2.4219	-0.3088	0.7580
PC 1	-3472.4891	49450410.5066	-0.0001	0.9999
PC 2	1944.1071	27692425.1635	0.0001	0.9999
PC 3	-527.1750	7516880.1482	-0.0001	0.9999
PC 4	-763.5831	10891359.2795	-0.0001	0.9999
PC 5	-169.3485	2431859.7519	-0.0001	0.9999
PC 6	753.8032	10724774.1527	0.0001	0.9999
PC 7	416.7894	5941793.3038	0.0001	0.9999
PC 8	-4472.2331	63707666.5731	-0.0001	0.9999
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0000	32.0000	0.0000	0.6983
Year Smooth	3.8706	19.0000	1.0754	0.0001
Station Random Effect	1.9745	7.0000	0.4765	0.1707

Table A3.52: Best productivity model for the Gray Flycatcher (*Empidonax wrightii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.0092	3.5361	-1.1338	0.2574
Noise Level	-0.1243	0.1169	-1.0628	0.2884
Noise Standard Deviation	0.4627	0.8058	0.5743	0.5660
PC 1	-1.2021	1.1739	-1.0241	0.3063
PC 2	0.7951	1.0198	0.7796	0.4360
PC 3	-0.2671	0.5958	-0.4482	0.6542
PC 4	-0.1850	0.7343	-0.2519	0.8012
PC 5	0.2691	0.3217	0.8366	0.4032
PC 6	0.5565	0.6093	0.9132	0.3615
PC 7	0.1474	1.2433	0.1185	0.9057
PC 8	-1.0044	2.1619	-0.4646	0.6424
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.6134	19.0000	4.4547	0.0597
Year Smooth	3.1822	7.0000	0.7765	0.2196
Station Random Effect	23.8302	40.0000	1.9369	< 0.0001

Table A3.53: Best abundance model for the Gray Flycatcher (*Empidonax wrightii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	0.1298	5.6856	0.0228	0.9818
Noise Level	-0.1256	0.1498	-0.8386	0.4019
Noise Standard Deviation	0.1106	0.4053	0.2729	0.7850
PC 1	-2.1137	3.6469	-0.5796	0.5624
PC 2	0.0757	2.0637	0.0367	0.9707
PC 3	-0.3813	0.6068	-0.6284	0.5299
PC 4	-2.1069	1.1642	-1.8098	0.0707
PC 5	1.1211	0.9213	1.2168	0.2240
PC 6	-0.7511	0.9705	-0.7739	0.4392
PC 7	0.0779	0.9792	0.0795	0.9366
PC 8	-2.7226	4.9174	-0.5537	0.5800
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	60.8421	140.0000	2.9254	< 0.0001
Year Smooth	0.0010	19.0000	0.0000	0.6960
Station Random Effect	4.6296	7.0000	3.7084	0.0869

Table A3.54: Best productivity model for the Hammond's Flycatcher (*Empidonax hammondi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.9246	0.3218	-21.5211	< 0.0001
Noise Standard Deviation	0.4976	0.2575	1.9326	0.0534
PC 1	-0.3397	0.2443	-1.3902	0.1647
PC 2	0.0202	0.2074	0.0974	0.9224
PC 3	0.0730	0.1684	0.4337	0.6646
PC 4	-0.0409	0.2405	-0.1699	0.8651
PC 5	0.2038	0.2243	0.9088	0.3636
PC 6	-0.2940	0.2196	-1.3393	0.1807
PC 7	-0.4467	0.2960	-1.5090	0.1315
PC 8	-0.0996	0.7208	-0.1381	0.8902
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	5.6307	19.0000	400.2779	0.0002
Year Smooth	3.6186	7.0000	15.0644	< 0.0001
Station Random Effect	113.6663	148.0000	5.3190	< 0.0001

Table A3.55: Best abundance model for the Hammond's Flycatcher (*Empidonax hammondi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	0.9433	2.2089	0.4270	0.6695
Noise Level	-0.0787	0.0633	-1.2437	0.2139
PC 1	0.0470	0.2470	0.1903	0.8491
PC 2	-0.0225	0.1757	-0.1281	0.8981
PC 3	-0.1219	0.1571	-0.7757	0.4381
PC 4	-0.0738	0.1858	-0.3970	0.6915
PC 5	0.1731	0.1884	0.9188	0.3584
PC 6	0.2305	0.2121	1.0872	0.2772
PC 7	0.0991	0.1490	0.6653	0.5060
PC 8	-0.5199	0.4613	-1.1270	0.2600
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	74.9000	228.0000	0.7392	< 0.0001
Year Smooth	5.5922	19.0000	14.0722	< 0.0001
Station Random Effect	0.5521	7.0000	0.3357	0.1795

Table A3.56: Best productivity model for the Hermit Thrush (*Catharus guttatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.2609	2.3848	-1.3674	0.1716
Noise Level	-0.0987	0.0695	-1.4201	0.1557
Noise Standard Deviation	0.0391	0.2822	0.1386	0.8898
PC 1	-0.0687	0.1905	-0.3608	0.7183
PC 2	-0.2417	0.1421	-1.7006	0.0892
PC 3	-0.1177	0.1603	-0.7340	0.4630
PC 4	0.0703	0.1787	0.3934	0.6941
PC 5	0.2639	0.1813	1.4552	0.1457
PC 6	0.1892	0.2241	0.8444	0.3985
PC 7	0.0329	0.1522	0.2164	0.8287
PC 8	0.1984	0.3752	0.5288	0.5970
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.7934	19.0000	1578.6367	0.0011
Year Smooth	2.2617	7.0000	2.9104	0.2369
Station Random Effect	187.8392	246.0000	5.6911	< 0.0001

Table A3.57: Best abundance model for the Hermit Thrush (*Catharus guttatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

A. parametric coefficients				
	Estimate	Std. Error	t-value	p-value
Intercept	-0.5561	0.2440	-2.2795	0.0230
Noise Standard Deviation	0.1813	0.1829	0.9913	0.3219
PC 1	0.1246	0.0901	1.3827	0.1673
PC 2	0.0048	0.1022	0.0471	0.9624
PC 3	0.0016	0.0735	0.0220	0.9824
PC 4	-0.0255	0.0839	-0.3036	0.7615
PC 5	0.1793	0.1035	1.7324	0.0837
PC 6	0.0014	0.0853	0.0160	0.9872
PC 7	-0.0172	0.1098	-0.1568	0.8755
PC 8	0.0120	0.0833	0.1442	0.8854
B. smooth terms				
	edf	Ref.df	F-value	p-value
Location Smooth	90.3872	205.0000	2.4188	< 0.0001
Year Smooth	0.0003	19.0000	0.0000	1.0000
Station Random Effect	0.0004	7.0000	0.0000	0.4120

Table A3.58: Best productivity model for the House Finch (*Haemorhous mexicanus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients				
	Estimate	Std. Error	t-value	p-value
Intercept	-8.2585	1.2772	-6.4661	< 0.0001
Noise Level	0.0280	0.0339	0.8242	0.4100
PC 1	0.5837	0.1257	4.6437	< 0.0001
PC 2	0.5201	0.1254	4.1463	< 0.0001
PC 3	0.3322	0.1084	3.0647	0.0022
PC 4	-0.3046	0.0916	-3.3241	0.0009
PC 5	-0.1073	0.1076	-0.9975	0.3187
PC 6	-0.2256	0.1072	-2.1058	0.0354
PC 7	0.0384	0.1265	0.3031	0.7618
PC 8	0.1939	0.1135	1.7093	0.0876
B. smooth terms				
	edf	Ref.df	F-value	p-value
Location Smooth	2.8036	19.0000	113.1749	0.0066
Year Smooth	5.9394	7.0000	537.7151	< 0.0001
Station Random Effect	182.5558	241.0000	9.0364	< 0.0001

Table A3.59: Best abundance model for the House Finch (*Haemorhous mexicanus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.0424	0.7859	-2.5988	0.0106
Noise Standard Deviation	0.5559	0.5273	1.0543	0.2940
PC 1	0.0535	0.2703	0.1979	0.8434
PC 2	-0.1928	0.3423	-0.5632	0.5744
PC 3	0.1696	0.3159	0.5370	0.5923
PC 4	-0.3313	0.2649	-1.2508	0.2136
PC 5	-0.0790	0.3750	-0.2105	0.8336
PC 6	0.3095	0.4779	0.6477	0.5185
PC 7	0.1313	0.4711	0.2788	0.7809
PC 8	0.0263	0.1794	0.1465	0.8838
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.7906	57.0000	0.6624	0.0001
Year Smooth	0.0000	19.0000	0.0000	0.9938
Station Random Effect	0.8481	7.0000	2.2571	0.0424

Table A3.60: Best productivity model for the House Sparrow (*Passer domesticus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.0697	0.4143	-19.4800	< 0.0001
PC 1	0.5308	0.2067	2.5679	0.0105
PC 2	0.1055	0.2475	0.4263	0.6700
PC 3	0.1046	0.2567	0.4076	0.6837
PC 4	-0.2542	0.1970	-1.2899	0.1976
PC 5	-0.3191	0.2798	-1.1406	0.2545
PC 6	0.0170	0.3882	0.0437	0.9651
PC 7	0.1143	0.2529	0.4520	0.6514
PC 8	0.0721	0.1753	0.4113	0.6810
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0004	19.0000	0.0000	0.5679
Year Smooth	4.6763	7.0000	11.5020	0.3038
Station Random Effect	53.2272	68.0000	5.6859	< 0.0001

Table A3.61: Best abundance model for the House Sparrow (*Passer domesticus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.5330	0.6730	-2.2780	0.0229
Noise Level	0.0187	0.0180	1.0394	0.2988
PC 1	0.0431	0.0780	0.5526	0.5806
PC 2	0.1531	0.0602	2.5432	0.0111
PC 3	0.0110	0.0479	0.2305	0.8178
PC 4	-0.0050	0.0574	-0.0864	0.9312
PC 5	0.0251	0.0652	0.3857	0.6998
PC 6	0.0195	0.0534	0.3652	0.7151
PC 7	-0.0982	0.0648	-1.5167	0.1296
PC 8	-0.2473	0.1217	-2.0315	0.0424
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	120.6938	315.0000	2.0014	< 0.0001
Year Smooth	4.1641	19.0000	14.2159	0.0194
Station Random Effect	0.3552	7.0000	0.2239	0.2448

Table A3.62: Best productivity model for the House Wren (*Troglodytes aedon*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.1583	0.1244	-49.4988	< 0.0001
PC 1	0.0993	0.0990	1.0034	0.3157
PC 2	0.3390	0.1050	3.2289	0.0013
PC 3	0.0610	0.1026	0.5945	0.5522
PC 4	-0.3261	0.0990	-3.2938	0.0010
PC 5	0.0850	0.1179	0.7213	0.4708
PC 6	0.0681	0.1068	0.6374	0.5239
PC 7	0.2232	0.1156	1.9301	0.0537
PC 8	-0.1306	0.1841	-0.7094	0.4781
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.8154	19.0000	2972.3615	0.1970
Year Smooth	3.2325	7.0000	286.4170	0.0001
Station Random Effect	311.4291	390.0000	8.3659	< 0.0001

Table A3.63: Best abundance model for the House Wren (*Troglodytes aedon*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.7423	0.2196	-12.4869	< 0.0001
Noise Standard Deviation	0.0490	0.1887	0.2598	0.7950
PC 1	-0.1292	0.0981	-1.3171	0.1880
PC 2	-0.2683	0.1099	-2.4412	0.0147
PC 3	-0.0924	0.2116	-0.4370	0.6622
PC 4	-0.1370	0.1468	-0.9332	0.3508
PC 5	0.2497	0.1630	1.5319	0.1257
PC 6	-0.0749	0.1659	-0.4516	0.6516
PC 7	0.1195	0.1449	0.8247	0.4096
PC 8	-0.0430	0.1871	-0.2299	0.8182
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	107.6952	369.0000	0.5919	< 0.0001
Year Smooth	9.8512	19.0000	18.9718	< 0.0001
Station Random Effect	5.5957	7.0000	7.8887	0.0003

Table A3.64: Best productivity model for the Indigo Bunting (*Passerina cyanea*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.5185	0.1761	-31.3297	< 0.0001
Noise Standard Deviation	0.1192	0.1742	0.6843	0.4938
PC 1	0.0187	0.0767	0.2435	0.8076
PC 2	0.0157	0.0872	0.1803	0.8570
PC 3	-0.2282	0.1514	-1.5071	0.1319
PC 4	-0.2115	0.1112	-1.9011	0.0574
PC 5	0.1016	0.1254	0.8102	0.4179
PC 6	-0.0829	0.1255	-0.6601	0.5092
PC 7	0.1133	0.1102	1.0277	0.3042
PC 8	-0.1573	0.1607	-0.9794	0.3275
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.8156	19.0000	1544.5176	< 0.0001
Year Smooth	5.4171	7.0000	92.1541	< 0.0001
Station Random Effect	286.0567	375.0000	7.1383	< 0.0001

Table A3.65: Best abundance model for the Indigo Bunting (*Passerina cyanea*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.3337	0.2439	-9.5674	< 0.0001
Noise Standard Deviation	0.2320	0.2097	1.1062	0.2689
PC 1	-0.0647	0.1247	-0.5187	0.6041
PC 2	-0.2385	0.1379	-1.7301	0.0840
PC 3	0.1044	0.1086	0.9608	0.3369
PC 4	-0.1672	0.1370	-1.2204	0.2226
PC 5	0.0203	0.1211	0.1678	0.8668
PC 6	-0.2486	0.1264	-1.9672	0.0495
PC 7	-0.0961	0.2321	-0.4141	0.6789
PC 8	0.1147	0.3511	0.3268	0.7439
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	87.1417	227.0000	1.3944	< 0.0001
Year Smooth	1.6605	19.0000	40.5738	0.0028
Station Random Effect	1.0217	7.0000	1.0753	0.1250

Table A3.66: Best productivity model for the Lazuli Bunting (*Passerina amoena*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.3314	0.1365	-46.3813	< 0.0001
PC 1	-0.0590	0.1349	-0.4373	0.6619
PC 2	0.0489	0.1271	0.3845	0.7006
PC 3	0.3363	0.1030	3.2660	0.0011
PC 4	-0.3855	0.1126	-3.4232	0.0006
PC 5	-0.2219	0.1112	-1.9961	0.0461
PC 6	0.0010	0.1165	0.0087	0.9931
PC 7	-0.0655	0.1697	-0.3862	0.6994
PC 8	-0.0264	0.3594	-0.0734	0.9415
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	4.3696	19.0000	140.3974	0.3490
Year Smooth	5.5901	7.0000	23.2137	< 0.0001
Station Random Effect	185.1872	241.0000	6.8078	< 0.0001

Table A3.67: Best abundance model for the Lazuli Bunting (*Passerina amoena*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.2694	0.3490	-6.5023	< 0.0001
PC 1	-0.3451	0.3151	-1.0953	0.2743
PC 2	-0.0407	0.2848	-0.1430	0.8864
PC 3	-0.4802	0.3868	-1.2414	0.2154
PC 4	-0.1933	0.4095	-0.4720	0.6373
PC 5	0.3802	0.5136	0.7403	0.4597
PC 6	0.2687	0.4565	0.5886	0.5566
PC 7	-0.3132	0.3524	-0.8889	0.3747
PC 8	1.0459	0.8352	1.2523	0.2114
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	20.0315	106.0000	0.2732	0.0210
Year Smooth	1.6296	19.0000	0.4901	0.1358
Station Random Effect	4.3473	7.0000	3.0040	0.0356

Table A3.68: Best productivity model for the Least Flycatcher (*Empidonax minimus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.9064	2.8208	-1.0303	0.3031
Noise Level	-0.1091	0.0761	-1.4350	0.1516
PC 1	0.2488	0.2502	0.9945	0.3202
PC 2	-0.0537	0.1917	-0.2803	0.7793
PC 3	-0.3773	0.2491	-1.5148	0.1302
PC 4	-0.3562	0.2706	-1.3167	0.1883
PC 5	0.3116	0.3411	0.9136	0.3612
PC 6	0.1126	0.2722	0.4136	0.6793
PC 7	0.0645	0.2303	0.2803	0.7793
PC 8	-0.1474	0.3758	-0.3923	0.6949
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	9.5493	19.0000	150.9727	0.0008
Year Smooth	5.0032	7.0000	5.2464	0.0826
Station Random Effect	69.0704	110.0000	3.0388	< 0.0001

Table A3.69: Best abundance model for the Least Flycatcher (*Empidonax minimus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	2.0993	1.7615	1.1918	0.2337
Noise Level	-0.1194	0.0523	-2.2848	0.0226
PC 1	0.0441	0.2126	0.2074	0.8358
PC 2	-0.5771	0.3461	-1.6671	0.0959
PC 3	0.3960	0.3094	1.2799	0.2010
PC 4	-0.6791	0.5604	-1.2118	0.2260
PC 5	0.1924	0.3465	0.5552	0.5789
PC 6	-0.2579	0.3171	-0.8132	0.4164
PC 7	-0.5691	0.8415	-0.6762	0.4991
PC 8	-0.2408	0.4057	-0.5936	0.5530
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	23.9046	108.0000	0.8536	< 0.0001
Year Smooth	1.8226	19.0000	4.2375	0.0080
Station Random Effect	1.7810	7.0000	0.8392	0.0747

Table A3.70: Best productivity model for the Lincoln's Sparrow (*Melospiza lincolni*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.9772	4.1559	-0.9570	0.3387
Noise Level	-0.0577	0.1210	-0.4766	0.6337
PC 1	-0.1414	0.4788	-0.2953	0.7678
PC 2	-0.6071	0.3437	-1.7663	0.0776
PC 3	-0.4235	0.2472	-1.7131	0.0869
PC 4	-0.3325	0.5196	-0.6399	0.5224
PC 5	-0.2118	0.6579	-0.3219	0.7476
PC 6	-0.1298	0.4122	-0.3148	0.7530
PC 7	-0.2470	0.5941	-0.4159	0.6776
PC 8	0.9012	0.9793	0.9203	0.3576
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.5120	19.0000	22262.5235	0.0008
Year Smooth	4.4842	7.0000	10.3767	0.2003
Station Random Effect	96.0500	125.0000	13.6719	< 0.0001

Table A3.71: Best abundance model for the Lincoln's Sparrow (*Melospiza lincolnii*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.6233	0.8939	-1.8159	0.0708
PC 1	-1.6246	0.7460	-2.1778	0.0306
PC 2	1.2203	0.3738	3.2643	0.0013
PC 3	1.4342	0.7702	1.8622	0.0640
PC 4	-0.4467	0.4311	-1.0361	0.3014
PC 5	0.6230	0.4799	1.2983	0.1956
PC 6	0.6847	1.0861	0.6304	0.5291
PC 7	0.2566	0.3685	0.6964	0.4869
PC 8	0.1637	1.5808	0.1036	0.9176
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	4.0766	54.0000	0.1329	0.0458
Year Smooth	1.7566	19.0000	0.7422	0.0062
Station Random Effect	3.8855	7.0000	1.4187	0.0590

Table A3.72: Best productivity model for the Magnolia Warbler (*Setophaga magnolia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.6439	3.7065	-0.7133	0.4761
Noise Level	-0.1013	0.0948	-1.0688	0.2858
PC 1	-0.2503	0.2888	-0.8668	0.3866
PC 2	0.0027	0.2894	0.0094	0.9925
PC 3	-0.5147	0.7755	-0.6638	0.5072
PC 4	0.5345	0.4447	1.2019	0.2301
PC 5	-0.1516	0.5564	-0.2725	0.7853
PC 6	-0.7959	1.1051	-0.7201	0.4718
PC 7	-0.0731	0.3160	-0.2312	0.8173
PC 8	0.1135	0.3072	0.3695	0.7120
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.7185	19.0000	46.4217	0.0031
Year Smooth	3.4054	7.0000	18.7662	0.0313
Station Random Effect	38.2189	54.0000	5.3567	< 0.0001

Table A3.73: Best abundance model for the Magnolia Warbler (*Setophaga magnolia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.2028	1.2425	-2.5778	0.0100
Noise Level	0.0464	0.0355	1.3076	0.1912
PC 1	-0.3785	0.2541	-1.4898	0.1365
PC 2	0.2489	0.1590	1.5659	0.1176
PC 3	-0.0588	0.0908	-0.6478	0.5172
PC 4	-0.0616	0.1297	-0.4749	0.6349
PC 5	0.1151	0.1410	0.8167	0.4142
PC 6	0.2146	0.1396	1.5379	0.1242
PC 7	0.0982	0.1634	0.6013	0.5477
PC 8	-0.4226	0.4379	-0.9650	0.3347
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	95.4481	254.0000	1.9754	< 0.0001
Year Smooth	11.2501	19.0000	132.8603	0.0250
Station Random Effect	0.9349	7.0000	4.0141	0.0003

Table A3.74: Best productivity model for the MacGillivray's Warbler (*Geothlypis tolmiei*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.5341	0.2119	-26.1164	< 0.0001
Noise Standard Deviation	0.1247	0.1764	0.7068	0.4797
PC 1	-0.7184	0.1583	-4.5397	< 0.0001
PC 2	-0.3905	0.1243	-3.1409	0.0017
PC 3	-0.0336	0.0943	-0.3564	0.7215
PC 4	-0.0484	0.1219	-0.3973	0.6912
PC 5	-0.0852	0.1303	-0.6539	0.5132
PC 6	-0.1409	0.1398	-1.0080	0.3135
PC 7	0.0196	0.1689	0.1160	0.9077
PC 8	-0.4244	0.3861	-1.0993	0.2718
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.6829	19.0000	5475.7041	0.1054
Year Smooth	4.1927	7.0000	158.7050	< 0.0001
Station Random Effect	199.3198	257.0000	15.4350	< 0.0001

Table A3.75: Best abundance model for the MacGillivray's Warbler (*Geothlypis tolmiei*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.7497	0.2831	-2.6483	0.0083
PC 1	0.3468	0.1514	2.2899	0.0223
PC 2	-0.3001	0.2130	-1.4091	0.1592
PC 3	0.2052	0.1488	1.3791	0.1683
PC 4	-0.0665	0.5083	-0.1309	0.8959
PC 5	1.1355	0.5224	2.1735	0.0301
PC 6	-0.4434	0.2977	-1.4897	0.1367
PC 7	0.1979	0.4598	0.4304	0.6670
PC 8	0.2352	0.4055	0.5800	0.5621
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	17.6297	114.0000	0.2361	0.0157
Year Smooth	1.8575	19.0000	1.6164	0.0006
Station Random Effect	4.6064	7.0000	1.6495	0.0492

Table A3.76: Best productivity model for the Mountain Chickadee (*Poecile gambeli*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.6374	0.3523	-18.8427	< 0.0001
Noise Standard Deviation	0.2769	0.2246	1.2332	0.2177
PC 1	-0.2667	0.2993	-0.8911	0.3730
PC 2	-0.3780	0.2282	-1.6566	0.0978
PC 3	-0.0223	0.1657	-0.1344	0.8931
PC 4	-0.7567	0.4173	-1.8130	0.0701
PC 5	1.4532	0.4285	3.3914	0.0007
PC 6	-0.2529	0.2700	-0.9365	0.3492
PC 7	0.8012	0.3800	2.1085	0.0352
PC 8	-0.7984	0.7932	-1.0065	0.3144
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.2785	19.0000	307.3745	0.0032
Year Smooth	5.0776	7.0000	8.0810	0.0001
Station Random Effect	80.1339	124.0000	4.4030	< 0.0001

Table A3.77: Best abundance model for the Mountain Chickadee (*Poecile gambeli*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.5032	0.6954	-5.0379	< 0.0001
PC 1	-0.0045	0.3807	-0.0117	0.9907
PC 2	-0.2250	0.4977	-0.4520	0.6517
PC 3	-0.4373	0.5352	-0.8171	0.4147
PC 4	0.3907	0.3887	1.0053	0.3158
PC 5	-0.5794	0.5082	-1.1402	0.2554
PC 6	-0.2315	0.6992	-0.3311	0.7409
PC 7	0.5587	0.4443	1.2577	0.2098
PC 8	-0.1948	0.9280	-0.2099	0.8339
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	68.1619	161.0000	0.4253	0.4342
Year Smooth	1.4339	19.0000	10.6970	0.4666
Station Random Effect	3.2982	7.0000	41.3259	0.2773

Table A3.78: Best productivity model for the Mourning Dove (*Zenaida macroura*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.1137	0.1307	-62.1015	< 0.0001
PC 1	0.2782	0.0776	3.5825	0.0003
PC 2	0.0808	0.0919	0.8789	0.3796
PC 3	0.1124	0.0802	1.4003	0.1616
PC 4	-0.0049	0.0781	-0.0633	0.9496
PC 5	-0.0553	0.0896	-0.6174	0.5371
PC 6	-0.0596	0.0967	-0.6160	0.5380
PC 7	-0.0044	0.0980	-0.0451	0.9641
PC 8	-0.1109	0.1559	-0.7109	0.4772
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.8477	19.0000	0.3361	0.3323
Year Smooth	4.2480	7.0000	4.3005	0.0981
Station Random Effect	117.8810	208.0000	1.4896	< 0.0001

Table A3.79: Best abundance model for the Mourning Dove (*Zenaida macroura*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	58.6599	22.1184	2.6521	0.0088
Noise Level	-1.8245	0.6696	-2.7248	0.0072
Noise Standard Deviation	4.5938	1.6340	2.8114	0.0056
PC 1	3.1338	1.5265	2.0530	0.0418
PC 2	0.2659	0.8654	0.3072	0.7591
PC 3	-1.3325	3.0434	-0.4378	0.6621
PC 4	-1.7530	1.1902	-1.4729	0.1428
PC 5	2.0334	1.1592	1.7542	0.0814
PC 6	4.7180	2.9664	1.5905	0.1138
PC 7	-1.7542	1.3512	-1.2982	0.1962
PC 8	5.1242	2.2152	2.3132	0.0220
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0001	43.0000	0.0000	0.2885
Year Smooth	0.0000	19.0000	0.0000	1.0000
Station Random Effect	3.3687	7.0000	1.7089	0.0072

Table A3.80: Best productivity model for the Myrtle Warbler (*Setophaga coronata coronata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	10.1253	4.2203	2.3992	0.0170
Noise Level	-0.4617	0.1148	-4.0227	0.0001
PC 1	0.3251	0.3357	0.9683	0.3336
PC 2	-0.2815	0.3208	-0.8775	0.3808
PC 3	-0.6062	0.7308	-0.8296	0.4073
PC 4	-0.0040	0.4376	-0.0092	0.9927
PC 5	0.2805	0.5371	0.5221	0.6019
PC 6	0.9188	0.9607	0.9564	0.3395
PC 7	-0.2699	0.2508	-1.0763	0.2826
PC 8	-0.0495	0.6385	-0.0776	0.9382
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	4.3065	19.0000	6.3119	0.3729
Year Smooth	0.9376	7.0000	6.5967	0.0002
Station Random Effect	28.5464	46.0000	2.8940	< 0.0001

Table A3.81: Best abundance model for the Myrtle Warbler (*Setophaga coronata coronata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	4.6831	3.3955	1.3792	0.1683
Noise Level	-0.1643	0.0955	-1.7198	0.0860
Noise Standard Deviation	0.2902	0.3122	0.9294	0.3530
PC 1	0.1893	0.2813	0.6729	0.5013
PC 2	-0.2445	0.2194	-1.1145	0.2655
PC 3	-0.0634	0.2139	-0.2964	0.7670
PC 4	-0.2941	0.2559	-1.1492	0.2509
PC 5	0.4100	0.3955	1.0367	0.3003
PC 6	0.0854	0.2866	0.2979	0.7659
PC 7	0.0699	0.3328	0.2102	0.8336
PC 8	-1.0212	0.5968	-1.7110	0.0876
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	56.0398	127.0000	4.1218	< 0.0001
Year Smooth	0.0003	19.0000	0.0000	0.9962
Station Random Effect	3.7514	7.0000	6.6571	0.0097

Table A3.82: Best productivity model for the Nashville Warbler (*Oreothlypis ruficapilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.9409	2.7016	-1.4587	0.1449
Noise Level	-0.0601	0.0749	-0.8026	0.4224
PC 1	0.0751	0.2127	0.3532	0.7240
PC 2	-0.3242	0.1568	-2.0673	0.0389
PC 3	0.1844	0.1814	1.0167	0.3095
PC 4	0.0560	0.1542	0.3630	0.7167
PC 5	0.4031	0.1956	2.0602	0.0396
PC 6	-0.1514	0.2163	-0.6997	0.4843
PC 7	0.0146	0.1950	0.0750	0.9403
PC 8	0.6066	0.4854	1.2497	0.2117
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	8.1910	19.0000	308.8057	0.0502
Year Smooth	4.8342	7.0000	10.8257	0.0020
Station Random Effect	100.5714	143.0000	5.1745	< 0.0001

Table A3.83: Best abundance model for the Nashville Warbler (*Oreothlypis ruficapilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.3137	0.6376	-3.6287	0.0003
Noise Level	0.0260	0.0159	1.6296	0.1033
PC 1	-0.0176	0.0476	-0.3689	0.7123
PC 2	0.0353	0.0426	0.8294	0.4070
PC 3	0.0641	0.0619	1.0356	0.3005
PC 4	-0.0539	0.0573	-0.9408	0.3469
PC 5	0.0196	0.0647	0.3031	0.7619
PC 6	-0.0177	0.0565	-0.3125	0.7547
PC 7	0.0649	0.0565	1.1498	0.2503
PC 8	-0.0636	0.0616	-1.0326	0.3019
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	188.5597	449.0000	1.6840	< 0.0001
Year Smooth	7.4274	19.0000	24.1008	0.0002
Station Random Effect	5.7339	7.0000	20.7779	< 0.0001

Table A3.84: Best productivity model for the Northern Cardinal (*Cardinalis cardinalis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.6378	0.0929	-49.9066	< 0.0001
Noise Standard Deviation	-0.0708	0.0981	-0.7220	0.4704
PC 1	0.2483	0.0352	7.0476	< 0.0001
PC 2	0.0254	0.0433	0.5878	0.5567
PC 3	-0.1094	0.0694	-1.5773	0.1148
PC 4	-0.0176	0.0562	-0.3136	0.7538
PC 5	-0.0847	0.0632	-1.3416	0.1798
PC 6	-0.0860	0.0593	-1.4501	0.1471
PC 7	0.1073	0.0548	1.9582	0.0503
PC 8	-0.1400	0.0579	-2.4186	0.0156
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.1513	19.0000	4901.6289	< 0.0001
Year Smooth	4.3820	7.0000	37.0642	0.0009
Station Random Effect	362.3280	450.0000	8.0568	< 0.0001

Table A3.85: Best abundance model for the Northern Cardinal (*Cardinalis cardinalis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.0994	0.2061	-5.3343	< 0.0001
Noise Standard Deviation	0.0473	0.1900	0.2490	0.8034
PC 1	-0.1443	0.0986	-1.4627	0.1439
PC 2	0.0650	0.1209	0.5376	0.5910
PC 3	-0.0943	0.1172	-0.8049	0.4211
PC 4	-0.1603	0.0985	-1.6278	0.1039
PC 5	-0.1383	0.1315	-1.0513	0.2934
PC 6	0.1222	0.1371	0.8912	0.3730
PC 7	0.0204	0.1348	0.1514	0.8797
PC 8	-0.2018	0.2426	-0.8316	0.4059
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	82.7266	189.0000	2.5531	< 0.0001
Year Smooth	10.1667	19.0000	72.5568	0.0182
Station Random Effect	3.9339	7.0000	7.6642	0.0356

Table A3.86: Best productivity model for the Orange-crowned Warbler (*Oreothlypis celata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.8759	1.1066	-8.0208	< 0.0001
Noise Level	0.0872	0.0306	2.8494	0.0044
Noise Standard Deviation	-0.1001	0.2115	-0.4732	0.6361
PC 1	-0.1872	0.1283	-1.4594	0.1446
PC 2	0.0597	0.1234	0.4842	0.6283
PC 3	0.0338	0.1077	0.3140	0.7536
PC 4	0.1134	0.1087	1.0433	0.2969
PC 5	0.0675	0.1389	0.4858	0.6272
PC 6	-0.1052	0.1315	-0.8002	0.4237
PC 7	-0.0294	0.1599	-0.1842	0.8539
PC 8	-0.2225	0.2838	-0.7841	0.4331
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.3608	19.0000	110.1914	0.0617
Year Smooth	5.1321	7.0000	84.1395	< 0.0001
Station Random Effect	164.7677	203.0000	9.9069	< 0.0001

Table A3.87: Best abundance model for the Orange-crowned Warbler (*Oreothlypis celata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.8929	0.2746	-6.8924	< 0.0001
Noise Standard Deviation	0.2657	0.1572	1.6903	0.0912
PC 1	-0.1105	0.0752	-1.4691	0.1420
PC 2	-0.1721	0.0952	-1.8066	0.0710
PC 3	-0.4388	0.2800	-1.5670	0.1173
PC 4	0.0398	0.1302	0.3056	0.7599
PC 5	0.0367	0.1589	0.2310	0.8173
PC 6	-0.2429	0.3023	-0.8034	0.4218
PC 7	-0.0438	0.1314	-0.3337	0.7387
PC 8	0.1275	0.1286	0.9909	0.3219
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	130.6412	318.0000	1.6946	< 0.0001
Year Smooth	3.2576	19.0000	11.4096	0.0175
Station Random Effect	3.2032	7.0000	15.5396	< 0.0001

Table A3.88: Best productivity model for the Ovenbird (*Seiurus aurocapilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.8779	1.2203	-2.3583	0.0184
Noise Level	-0.0709	0.0300	-2.3650	0.0181
Noise Standard Deviation	0.1550	0.1649	0.9400	0.3473
PC 1	-0.1765	0.0938	-1.8816	0.0600
PC 2	-0.2940	0.1016	-2.8942	0.0038
PC 3	0.0191	0.2734	0.0697	0.9444
PC 4	-0.0559	0.0977	-0.5727	0.5669
PC 5	0.1616	0.1140	1.4179	0.1564
PC 6	0.0947	0.2217	0.4272	0.6692
PC 7	-0.1346	0.1187	-1.1344	0.2567
PC 8	-0.0431	0.1033	-0.4166	0.6770
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	15.1305	19.0000	2766.3287	< 0.0001
Year Smooth	5.0687	7.0000	47.8087	0.0001
Station Random Effect	251.0550	329.0000	7.1589	< 0.0001

Table A3.89: Best abundance model for the Ovenbird (*Seiurus aurocapilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	1.2309	3.3499	0.3674	0.7134
Noise Level	-0.0825	0.0969	-0.8511	0.3950
PC 1	0.3732	0.4021	0.9283	0.3535
PC 2	0.0992	0.2771	0.3581	0.7203
PC 3	0.1594	0.2236	0.7131	0.4760
PC 4	0.1487	0.3900	0.3811	0.7032
PC 5	0.2507	0.3618	0.6930	0.4885
PC 6	-0.1172	0.2556	-0.4583	0.6469
PC 7	0.0078	0.3063	0.0256	0.9796
PC 8	-0.1937	0.7763	-0.2495	0.8030
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	50.8367	157.0000	0.8125	< 0.0001
Year Smooth	5.0387	19.0000	4.7697	0.1010
Station Random Effect	6.3952	7.0000	12.3406	0.0006

Table A3.90: Best productivity model for the Pine Siskin (*Spinus pinus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.9610	0.2260	-26.3752	< 0.0001
PC 1	0.6357	0.3092	2.0559	0.0399
PC 2	-0.7055	0.2219	-3.1791	0.0015
PC 3	0.2774	0.1604	1.7290	0.0840
PC 4	0.7665	0.2564	2.9900	0.0028
PC 5	0.4265	0.2354	1.8115	0.0702
PC 6	-0.3417	0.1940	-1.7616	0.0783
PC 7	-0.4206	0.2511	-1.6749	0.0941
PC 8	1.7618	0.6102	2.8875	0.0039
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	9.9008	19.0000	126.4948	0.1462
Year Smooth	5.7352	7.0000	19.3483	< 0.0001
Station Random Effect	112.4495	166.0000	3.6217	< 0.0001

Table A3.91: Best abundance model for the Pine Siskin (*Spinus pinus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.3606	0.3525	-3.8602	0.0001
Noise Standard Deviation	0.2423	0.2232	1.0854	0.2781
PC 1	-0.1990	0.2932	-0.6788	0.4975
PC 2	-0.1906	0.2231	-0.8542	0.3933
PC 3	0.0500	0.1619	0.3085	0.7578
PC 4	0.3468	0.3174	1.0929	0.2748
PC 5	0.1341	0.3487	0.3845	0.7007
PC 6	-0.0406	0.2275	-0.1784	0.8585
PC 7	0.1497	0.2339	0.6400	0.5224
PC 8	-0.2806	0.5404	-0.5192	0.6038
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	52.6359	180.0000	0.6721	< 0.0001
Year Smooth	4.8422	19.0000	2.6268	0.0599
Station Random Effect	1.9140	7.0000	1.6819	0.0176

Table A3.92: Best productivity model for the Red-breasted Nuthatch (*Sitta canadensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.0317	1.4887	-2.0365	0.0418
Noise Level	-0.1285	0.0439	-2.9274	0.0035
Noise Standard Deviation	0.5041	0.1954	2.5798	0.0100
PC 1	-0.0547	0.1515	-0.3612	0.7180
PC 2	-0.1281	0.1124	-1.1396	0.2546
PC 3	-0.1776	0.1075	-1.6525	0.0986
PC 4	-0.0421	0.1660	-0.2538	0.7997
PC 5	0.5623	0.1892	2.9716	0.0030
PC 6	0.0131	0.1443	0.0908	0.9277
PC 7	-0.0594	0.1414	-0.4204	0.6742
PC 8	-0.0022	0.2943	-0.0076	0.9939
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.4012	19.0000	0.6237	0.3604
Year Smooth	6.2264	7.0000	15.0518	< 0.0001
Station Random Effect	131.5414	195.0000	3.2410	< 0.0001

Table A3.93: Best abundance model for the Red-breasted Nuthatch (*Sitta canadensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.3188	1.0963	-3.0273	0.0027
PC 1	-0.2990	0.8248	-0.3625	0.7172
PC 2	-0.8040	0.8737	-0.9203	0.3582
PC 3	0.3738	0.5742	0.6509	0.5156
PC 4	-1.3038	1.6947	-0.7693	0.4423
PC 5	2.7917	2.1608	1.2920	0.1974
PC 6	-0.9824	1.1654	-0.8429	0.3999
PC 7	0.8947	1.4728	0.6075	0.5440
PC 8	-0.9044	1.8349	-0.4929	0.6224
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	25.8915	81.0000	1.9307	< 0.0001
Year Smooth	1.5697	19.0000	2.3045	0.0591
Station Random Effect	4.7945	7.0000	8.0258	0.0001

Table A3.94: Best productivity model for the Ruby-crowned Kinglet (*Regulus calendula*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.3439	3.6606	-2.0062	0.0451
Noise Level	0.0115	0.1076	0.1065	0.9152
PC 1	-0.6824	0.4277	-1.5954	0.1110
PC 2	0.5094	0.2767	1.8409	0.0660
PC 3	-0.0425	0.2123	-0.2004	0.8412
PC 4	-0.2535	0.2626	-0.9654	0.3346
PC 5	0.2088	0.3314	0.6301	0.5288
PC 6	-0.2690	0.3432	-0.7839	0.4333
PC 7	-0.2304	0.3384	-0.6808	0.4962
PC 8	-0.5516	1.1046	-0.4993	0.6177
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.8484	19.0000	3.9138	0.1781
Year Smooth	5.6430	7.0000	28.5318	< 0.0001
Station Random Effect	65.1373	81.0000	9.8695	< 0.0001

Table A3.95: Best abundance model for the Ruby-crowned Kinglet (*Regulus calendula*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.3790	1.8105	-2.4187	0.0157
Noise Level	0.0168	0.0443	0.3784	0.7052
Noise Standard Deviation	0.3250	0.2759	1.1783	0.2388
PC 1	-0.3899	0.2257	-1.7277	0.0842
PC 2	0.0728	0.1713	0.4248	0.6710
PC 3	-0.3914	0.3356	-1.1663	0.2436
PC 4	0.0722	0.1685	0.4286	0.6683
PC 5	0.0456	0.1933	0.2357	0.8137
PC 6	0.3586	0.2929	1.2245	0.2209
PC 7	-0.0470	0.1811	-0.2598	0.7950
PC 8	-0.4567	0.3605	-1.2670	0.2053
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	159.8349	437.0000	0.6054	< 0.0001
Year Smooth	9.7350	19.0000	14.4904	0.1531
Station Random Effect	5.1152	7.0000	7.3138	0.0151

Table A3.96: Best productivity model for the Red-eyed Vireo (*Vireo olivaceus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.7876	0.9902	-5.8449	< 0.0001
Noise Level	-0.0055	0.0252	-0.2196	0.8262
Noise Standard Deviation	0.3111	0.1434	2.1695	0.0301
PC 1	-0.1688	0.0786	-2.1475	0.0318
PC 2	-0.1100	0.0670	-1.6413	0.1008
PC 3	-0.2414	0.1285	-1.8782	0.0604
PC 4	0.1448	0.0854	1.6951	0.0901
PC 5	0.2553	0.0978	2.6097	0.0091
PC 6	-0.0248	0.1169	-0.2118	0.8323
PC 7	-0.0186	0.0848	-0.2192	0.8265
PC 8	0.0013	0.0939	0.0141	0.9887
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.8426	19.0000	436.1807	0.0083
Year Smooth	4.4853	7.0000	49.9088	< 0.0001
Station Random Effect	337.7243	440.0000	6.5305	< 0.0001

Table A3.97: Best abundance model for the Red-eyed Vireo (*Vireo olivaceus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.1031	1.8774	-0.0549	0.9562
Noise Level	-0.0153	0.0515	-0.2972	0.7664
Noise Standard Deviation	-0.1737	0.2510	-0.6920	0.4891
PC 1	-0.2490	0.2301	-1.0819	0.2796
PC 2	0.2931	0.1462	2.0042	0.0454
PC 3	-0.2156	0.1743	-1.2365	0.2166
PC 4	0.1487	0.1493	0.9966	0.3193
PC 5	-0.3093	0.1748	-1.7690	0.0773
PC 6	-0.7808	0.2958	-2.6394	0.0085
PC 7	0.0083	0.1689	0.0493	0.9607
PC 8	-0.5969	0.4316	-1.3830	0.1670
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	46.9424	124.0000	1.8257	< 0.0001
Year Smooth	8.1167	19.0000	36.1522	0.0017
Station Random Effect	0.0440	7.0000	0.0061	0.3389

Table A3.98: Best productivity model for the Rufous Hummingbird (*Selasphorus rufus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.6264	0.1366	-41.2015	< 0.0001
PC 1	0.0348	0.1743	0.1998	0.8417
PC 2	-0.2080	0.1410	-1.4756	0.1403
PC 3	0.1117	0.1343	0.8314	0.4059
PC 4	0.1091	0.1345	0.8111	0.4174
PC 5	-0.0646	0.1469	-0.4399	0.6601
PC 6	-0.3158	0.1834	-1.7222	0.0852
PC 7	0.0601	0.1722	0.3492	0.7270
PC 8	0.2897	0.4640	0.6243	0.5325
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	8.5769	19.0000	165.4871	0.0150
Year Smooth	5.2671	7.0000	18.4449	< 0.0001
Station Random Effect	92.3668	139.0000	3.8574	< 0.0001

Table A3.99: Best abundance model for the Rufous Hummingbird (*Selasphorus rufus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.7821	2.0679	-1.8290	0.0678
PC 1	-0.1069	0.6877	-0.1555	0.8765
PC 2	-0.0375	0.8162	-0.0460	0.9634
PC 3	-0.4498	2.4828	-0.1812	0.8563
PC 4	-0.8354	0.8462	-0.9871	0.3239
PC 5	0.4943	0.9692	0.5101	0.6102
PC 6	1.4105	2.1112	0.6681	0.5043
PC 7	-0.5916	1.0214	-0.5793	0.5626
PC 8	-0.0256	1.1842	-0.0216	0.9827
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	92.6425	199.0000	0.6598	0.0007
Year Smooth	4.5153	19.0000	18.6423	0.3141
Station Random Effect	1.3363	7.0000	1.8350	0.2540

Table A3.100: Best productivity model for the Scarlet Tanager (*Piranga olivacea*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.9601	1.4352	-3.4560	0.0006
Noise Level	-0.0391	0.0339	-1.1538	0.2487
Noise Standard Deviation	-0.3710	0.1964	-1.8887	0.0591
PC 1	-0.1434	0.1431	-1.0021	0.3164
PC 2	-0.1472	0.1523	-0.9662	0.3341
PC 3	-0.0609	0.4634	-0.1315	0.8954
PC 4	0.0471	0.1748	0.2697	0.7874
PC 5	0.1269	0.2088	0.6077	0.5434
PC 6	0.1340	0.4449	0.3011	0.7634
PC 7	-0.0498	0.1967	-0.2534	0.8000
PC 8	-0.0392	0.1381	-0.2837	0.7767
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	9.9117	19.0000	16.7628	0.0626
Year Smooth	0.8590	7.0000	1.9617	0.0165
Station Random Effect	125.4142	210.0000	2.3140	< 0.0001

Table A3.101: Best abundance model for the Scarlet Tanager (*Piranga olivacea*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.4620	0.0338	-13.6707	< 0.0001
PC 1	0.0185	0.0250	0.7382	0.4604
PC 2	0.0190	0.0279	0.6816	0.4956
PC 3	-0.0568	0.0355	-1.6015	0.1094
PC 4	-0.0318	0.0284	-1.1220	0.2619
PC 5	0.0687	0.0347	1.9786	0.0479
PC 6	-0.0044	0.0404	-0.1092	0.9131
PC 7	-0.0299	0.0318	-0.9405	0.3471
PC 8	-0.0212	0.0475	-0.4459	0.6557
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	221.6294	501.0000	2.8792	< 0.0001
Year Smooth	12.2336	19.0000	99.0189	0.0001
Station Random Effect	0.8993	7.0000	3.5169	0.0286

Table A3.102: Best productivity model for the Song Sparrow (*Melospiza melodia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.9705	0.1582	-31.4288	< 0.0001
Noise Standard Deviation	0.3443	0.1517	2.2696	0.0233
PC 1	0.2476	0.0573	4.3251	< 0.0001
PC 2	0.2925	0.0684	4.2775	< 0.0001
PC 3	-0.0538	0.0822	-0.6544	0.5129
PC 4	-0.0543	0.0614	-0.8838	0.3769
PC 5	0.0246	0.0755	0.3258	0.7446
PC 6	-0.1522	0.0845	-1.8015	0.0717
PC 7	0.0054	0.0749	0.0715	0.9430
PC 8	-0.1360	0.1040	-1.3079	0.1910
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.4235	19.0000	17438.8744	0.0008
Year Smooth	6.5783	7.0000	1325.2390	< 0.0001
Station Random Effect	462.0270	537.0000	15.0428	< 0.0001

Table A3.103: Best abundance model for the Song Sparrow (*Melospiza melodia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.8795	0.0766	-11.4791	< 0.0001
PC 1	0.0357	0.0553	0.6453	0.5188
PC 2	-0.0081	0.0634	-0.1277	0.8984
PC 3	-0.0023	0.0554	-0.0418	0.9667
PC 4	0.1800	0.0567	3.1717	0.0016
PC 5	0.1724	0.0636	2.7130	0.0068
PC 6	-0.0894	0.0604	-1.4811	0.1388
PC 7	-0.0569	0.0752	-0.7570	0.4492
PC 8	-0.0344	0.1421	-0.2422	0.8087
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	96.5385	231.0000	1.5137	< 0.0001
Year Smooth	8.3228	19.0000	24.2075	0.0009
Station Random Effect	3.0302	7.0000	3.5802	0.0097

Table A3.104: Best productivity model for the Spotted Towhee (*Pipilo maculatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.5179	0.1296	-42.5655	< 0.0001
PC 1	0.1514	0.0998	1.5180	0.1292
PC 2	0.2132	0.1098	1.9417	0.0523
PC 3	0.1607	0.0968	1.6613	0.0968
PC 4	-0.2725	0.0997	-2.7326	0.0063
PC 5	-0.2340	0.1091	-2.1442	0.0321
PC 6	0.0553	0.1037	0.5330	0.5941
PC 7	-0.0112	0.1424	-0.0789	0.9371
PC 8	-0.1483	0.2645	-0.5607	0.5751
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	8.3816	19.0000	3577.8848	0.0033
Year Smooth	5.3978	7.0000	59.6013	0.0228
Station Random Effect	219.8740	253.0000	9.8830	< 0.0001

Table A3.105: Best abundance model for the Spotted Towhee (*Pipilo maculatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.5261	1.2473	-2.8268	0.0048
Noise Level	0.0262	0.0343	0.7634	0.4453
PC 1	-0.2562	0.1345	-1.9050	0.0569
PC 2	0.3297	0.0869	3.7932	0.0002
PC 3	-0.1140	0.1051	-1.0844	0.2783
PC 4	-0.0290	0.0916	-0.3161	0.7520
PC 5	0.1789	0.1048	1.7062	0.0881
PC 6	0.1753	0.1054	1.6637	0.0963
PC 7	-0.0109	0.1031	-0.1056	0.9159
PC 8	-0.7317	0.2231	-3.2798	0.0011
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	114.4531	297.0000	2.5796	< 0.0001
Year Smooth	8.1588	19.0000	38.5036	0.1043
Station Random Effect	6.8096	7.0000	18.9283	0.0035

Table A3.106: Best productivity model for the Swainson's Thrush (*Catharus ustulatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-4.5971	0.0935	-49.1437	< 0.0001
PC 1	-0.0505	0.0899	-0.5623	0.5740
PC 2	-0.1435	0.0875	-1.6408	0.1010
PC 3	-0.1396	0.0995	-1.4036	0.1606
PC 4	0.1015	0.0851	1.1927	0.2331
PC 5	0.1633	0.0962	1.6971	0.0898
PC 6	0.0006	0.1037	0.0063	0.9950
PC 7	0.0189	0.1018	0.1852	0.8531
PC 8	0.1454	0.2299	0.6322	0.5273
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	16.3055	19.0000	49696.0184	< 0.0001
Year Smooth	3.3826	7.0000	105.3056	< 0.0001
Station Random Effect	226.0497	292.0000	15.4334	< 0.0001

Table A3.107: Best abundance model for the Swainson's Thrush (*Catharus ustulatus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-19.4998	26.7243	-0.7297	0.4672
Noise Level	-0.0587	0.2876	-0.2040	0.8388
Noise Standard Deviation	0.2681	1.0622	0.2524	0.8012
PC 1	-5.9392	7.2985	-0.8138	0.4176
PC 2	-6.2567	9.0408	-0.6921	0.4904
PC 3	6.9049	10.5445	0.6548	0.5140
PC 4	18.1785	26.8155	0.6779	0.4993
PC 5	19.4381	23.9317	0.8122	0.4184
PC 6	-0.8402	2.5095	-0.3348	0.7384
PC 7	-2.5565	6.6066	-0.3870	0.6995
PC 8	-1.4840	6.1840	-0.2400	0.8108
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.5627	46.0000	0.3080	0.2506
Year Smooth	1.2056	19.0000	0.1120	0.3819
Station Random Effect	0.1249	7.0000	0.0088	0.4987

Table A3.108: Best productivity model for the Townsend's Solitaire (*Myadestes townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-9.2530	1.6160	-5.7258	< 0.0001
Noise Standard Deviation	0.6039	0.4194	1.4398	0.1503
PC 1	0.8327	0.6279	1.3263	0.1851
PC 2	-1.1717	0.6697	-1.7497	0.0805
PC 3	0.7224	0.6592	1.0960	0.2734
PC 4	0.9401	1.7056	0.5512	0.5816
PC 5	1.1912	1.4819	0.8039	0.4217
PC 6	-0.4497	0.4918	-0.9143	0.3608
PC 7	0.3005	0.9146	0.3286	0.7425
PC 8	3.2303	1.5124	2.1358	0.0330
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	5.4441	19.0000	2.1846	0.3619
Year Smooth	0.4945	7.0000	0.0732	0.3396
Station Random Effect	29.5461	61.0000	0.8155	0.0007

Table A3.109: Best abundance model for the Townsend's Solitaire (*Myadestes townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	6.4376	13.3176	0.4834	0.6292
Noise Level	-0.3582	0.3263	-1.0980	0.2730
Noise Standard Deviation	1.1764	0.9687	1.2144	0.2255
PC 1	-5.7519	10.9903	-0.5234	0.6011
PC 2	3.5773	6.2433	0.5730	0.5671
PC 3	-1.6402	1.6747	-0.9794	0.3281
PC 4	-1.6770	2.5976	-0.6456	0.5190
PC 5	0.1870	1.2545	0.1491	0.8816
PC 6	0.4076	2.5961	0.1570	0.8753
PC 7	1.8077	1.4105	1.2816	0.2009
PC 8	-3.4752	16.4894	-0.2108	0.8332
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	5.1857	31.0000	0.6496	< 0.0001
Year Smooth	4.3481	19.0000	2.2009	0.0410
Station Random Effect	2.1582	7.0000	5.7985	< 0.0001

Table A3.110: Best productivity model for the Townsend's Warbler (*Setophaga townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.9989	1.2818	-7.0206	< 0.0001
Noise Standard Deviation	0.1366	0.4650	0.2938	0.7690
PC 1	-3.0628	2.2303	-1.3733	0.1702
PC 2	0.2351	1.3783	0.1706	0.8646
PC 3	-0.0318	0.3711	-0.0857	0.9317
PC 4	0.2339	0.6570	0.3560	0.7220
PC 5	-0.0843	0.8217	-0.1026	0.9183
PC 6	1.1610	0.7033	1.6508	0.0993
PC 7	0.3909	0.4082	0.9574	0.3387
PC 8	-3.4977	3.6735	-0.9521	0.3414
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.3837	19.0000	88.9604	0.0010
Year Smooth	4.8972	7.0000	10.2192	< 0.0001
Station Random Effect	13.3808	38.0000	2.6032	< 0.0001

Table A3.111: Best abundance model for the Townsend's Warbler (*Setophaga townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.7312	0.1124	-24.3070	< 0.0001
PC 1	-0.0075	0.1067	-0.0700	0.9442
PC 2	0.0235	0.0996	0.2360	0.8134
PC 3	-0.1259	0.0872	-1.4442	0.1488
PC 4	-0.0849	0.1131	-0.7512	0.4526
PC 5	0.2074	0.1298	1.5977	0.1103
PC 6	0.0772	0.1118	0.6900	0.4903
PC 7	0.1984	0.1190	1.6670	0.0957
PC 8	-0.2896	0.2735	-1.0590	0.2897
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	99.7835	360.0000	0.8811	< 0.0001
Year Smooth	10.1708	19.0000	25.7076	0.0257
Station Random Effect	1.6555	7.0000	1.1432	0.0451

Table A3.112: Best productivity model for the Warbling Vireo (*Vireo gilvus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.9069	1.1482	-2.5317	0.0114
Noise Level	-0.0828	0.0332	-2.4919	0.0128
Noise Standard Deviation	0.2944	0.1471	2.0015	0.0454
PC 1	-0.0590	0.1121	-0.5260	0.5989
PC 2	-0.2455	0.0753	-3.2619	0.0011
PC 3	0.0046	0.0665	0.0685	0.9454
PC 4	0.0318	0.0693	0.4585	0.6466
PC 5	-0.0731	0.0785	-0.9317	0.3516
PC 6	-0.0596	0.0795	-0.7498	0.4534
PC 7	0.0364	0.0881	0.4133	0.6794
PC 8	0.1677	0.2301	0.7289	0.4661
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	7.9826	19.0000	382.9377	0.1564
Year Smooth	3.4419	7.0000	11.2999	0.0249
Station Random Effect	281.9414	361.0000	9.2574	< 0.0001

Table A3.113: Best abundance model for the Warbling Vireo (*Vireo gilvus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.9886	1.5129	-0.6534	0.5137
Noise Level	-0.0162	0.0398	-0.4069	0.6842
PC 1	0.1949	0.1294	1.5060	0.1325
PC 2	0.1849	0.1051	1.7589	0.0790
PC 3	0.1179	0.1045	1.1279	0.2597
PC 4	0.1170	0.1508	0.7758	0.4381
PC 5	-0.2917	0.1825	-1.5980	0.1105
PC 6	0.0954	0.1361	0.7012	0.4834
PC 7	-0.1562	0.1447	-1.0794	0.2808
PC 8	0.1191	0.1612	0.7391	0.4601
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	93.4962	291.0000	0.5148	< 0.0001
Year Smooth	0.0004	19.0000	0.0000	0.5721
Station Random Effect	1.5168	7.0000	0.9737	0.2442

Table A3.114: Best productivity model for the White-breasted Nuthatch (*Sitta carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.8815	1.3480	-6.5888	< 0.0001
Noise Level	0.0420	0.0351	1.1944	0.2324
PC 1	0.0025	0.1038	0.0238	0.9810
PC 2	0.0461	0.0784	0.5871	0.5572
PC 3	0.0764	0.0867	0.8808	0.3785
PC 4	-0.0181	0.1133	-0.1599	0.8730
PC 5	-0.0012	0.1361	-0.0085	0.9932
PC 6	0.0509	0.0999	0.5100	0.6101
PC 7	0.1477	0.1053	1.4035	0.1606
PC 8	-0.1605	0.1154	-1.3906	0.1644
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	9.5619	19.0000	76.9712	< 0.0001
Year Smooth	2.4944	7.0000	25.6628	< 0.0001
Station Random Effect	206.6127	339.0000	1.8534	< 0.0001

Table A3.115: Best abundance model for the White-breasted Nuthatch (*Sitta carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.1209	1.2338	-6.5819	< 0.0001
Noise Standard Deviation	0.3087	0.9149	0.3375	0.7360
PC 1	1.3044	1.3451	0.9697	0.3329
PC 2	-1.0761	0.9374	-1.1480	0.2519
PC 3	0.8044	0.4835	1.6637	0.0972
PC 4	1.5727	1.2159	1.2934	0.1969
PC 5	0.8924	0.9703	0.9198	0.3584
PC 6	-0.2170	0.9355	-0.2320	0.8167
PC 7	-0.0007	1.2976	-0.0005	0.9996
PC 8	4.9846	4.3721	1.1401	0.2551
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0000	19.0000	0.0000	0.9136
Year Smooth	0.0004	7.0000	0.0000	0.5430
Station Random Effect	11.6486	20.0000	2.4616	< 0.0001

Table A3.116: Best abundance model for the White-crowned Sparrow (*Zonotrichia leucophrys*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.2890	2.3336	-1.4094	0.1611
Noise Level	0.0694	0.0684	1.0146	0.3122
PC 1	0.0686	0.3709	0.1850	0.8535
PC 2	0.3671	0.2023	1.8150	0.0718
PC 3	0.0395	0.2005	0.1970	0.8441
PC 4	-0.1296	0.2314	-0.5601	0.5764
PC 5	0.0416	0.1364	0.3052	0.7607
PC 6	-0.3727	0.1835	-2.0313	0.0443
PC 7	-0.2685	0.3529	-0.7608	0.4481
PC 8	0.9051	0.7802	1.1601	0.2481
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0004	34.0000	0.0000	0.1209
Year Smooth	4.1351	19.0000	1.0693	0.0001
Station Random Effect	0.0000	7.0000	0.0000	1.0000

Table A3.117: Best productivity model for the Western Bluebird (*Sialia mexicana*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.9412	0.5631	-10.5502	< 0.0001
Noise Standard Deviation	-1.1724	0.5748	-2.0395	0.0421
PC 1	0.9621	0.3748	2.5671	0.0106
PC 2	-0.1795	0.2459	-0.7298	0.4659
PC 3	0.3933	0.2161	1.8201	0.0695
PC 4	-0.0647	0.2459	-0.2632	0.7925
PC 5	0.0660	0.1929	0.3422	0.7324
PC 6	-0.5090	0.2328	-2.1863	0.0294
PC 7	-0.5776	0.3740	-1.5443	0.1233
PC 8	1.3740	0.9253	1.4849	0.1384
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.3985	19.0000	3.1992	0.0580
Year Smooth	2.0950	7.0000	4.8361	0.0334
Station Random Effect	25.1865	39.0000	2.7892	< 0.0001

Table A3.118: Best abundance model for the Western Bluebird (*Sialia mexicana*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.3187	0.3985	-5.8179	< 0.0001
Noise Standard Deviation	0.2665	0.2107	1.2650	0.2068
PC 1	0.0469	0.1188	0.3947	0.6933
PC 2	-0.2794	0.2489	-1.1222	0.2626
PC 3	0.3041	0.1884	1.6146	0.1074
PC 4	0.2178	0.1199	1.8171	0.0701
PC 5	-0.4322	0.2215	-1.9513	0.0519
PC 6	0.1698	0.1938	0.8761	0.3816
PC 7	0.4670	0.2402	1.9441	0.0527
PC 8	-0.2683	0.2051	-1.3080	0.1918
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.4454	119.0000	0.0905	0.3514
Year Smooth	3.0656	19.0000	0.8128	0.0062
Station Random Effect	2.0312	7.0000	1.1672	0.0231

Table A3.119: Best productivity model for the Western Scrub-Jay (*Aphelocoma californica*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-8.5727	1.0421	-8.2260	< 0.0001
Noise Level	0.0355	0.0281	1.2617	0.2074
Noise Standard Deviation	0.1155	0.1751	0.6598	0.5096
PC 1	0.1653	0.1039	1.5915	0.1118
PC 2	0.0066	0.1124	0.0588	0.9531
PC 3	0.1697	0.0843	2.0135	0.0444
PC 4	-0.2264	0.0823	-2.7490	0.0061
PC 5	-0.0130	0.0954	-0.1363	0.8916
PC 6	0.1111	0.0930	1.1947	0.2325
PC 7	-0.2176	0.1281	-1.6989	0.0897
PC 8	-0.2603	0.1598	-1.6286	0.1037
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0003	19.0000	0.0000	0.8736
Year Smooth	0.0010	7.0000	0.0001	0.5418
Station Random Effect	80.2528	129.0000	2.2458	< 0.0001

Table A3.120: Best abundance model for the Western Scrub-Jay (*Aphelocoma californica*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.0253	2.0596	-2.4399	0.0148
Noise Level	0.0849	0.0592	1.4344	0.1517
PC 1	-0.2706	0.2110	-1.2827	0.1998
PC 2	0.1041	0.1728	0.6025	0.5470
PC 3	-0.1394	0.1391	-1.0019	0.3166
PC 4	-0.2267	0.2032	-1.1161	0.2646
PC 5	0.2768	0.2321	1.1928	0.2331
PC 6	-0.0400	0.1888	-0.2117	0.8324
PC 7	0.4216	0.3032	1.3905	0.1646
PC 8	-0.4597	0.3855	-1.1926	0.2332
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	106.1816	276.0000	1.2605	< 0.0001
Year Smooth	9.4893	19.0000	101.5618	0.0066
Station Random Effect	6.3415	7.0000	10.0046	< 0.0001

Table A3.121: Best productivity model for the Western Tanager (*Piranga ludoviciana*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.1426	0.1870	-32.8461	< 0.0001
Noise Standard Deviation	0.2729	0.1663	1.6407	0.1010
PC 1	-0.2117	0.1072	-1.9742	0.0485
PC 2	-0.1026	0.1044	-0.9820	0.3262
PC 3	0.0241	0.0850	0.2836	0.7767
PC 4	-0.0480	0.1131	-0.4247	0.6711
PC 5	0.0142	0.1093	0.1303	0.8963
PC 6	-0.0168	0.1100	-0.1529	0.8785
PC 7	-0.0809	0.1667	-0.4853	0.6275
PC 8	0.1342	0.2585	0.5189	0.6039
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	10.5284	19.0000	201.1588	0.0226
Year Smooth	5.3334	7.0000	48.8426	< 0.0001
Station Random Effect	196.3052	275.0000	6.4981	< 0.0001

Table A3.122: Best abundance model for the Western Tanager (*Piranga ludoviciana*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	0.8922	1.1108	0.8032	0.4220
Noise Level	-0.0626	0.0276	-2.2705	0.0233
Noise Standard Deviation	0.2701	0.1673	1.6148	0.1066
PC 1	0.1043	0.1419	0.7350	0.4625
PC 2	-0.0656	0.1029	-0.6377	0.5238
PC 3	0.2398	0.0977	2.4542	0.0143
PC 4	0.0216	0.0938	0.2305	0.8178
PC 5	0.1625	0.1117	1.4540	0.1462
PC 6	0.1163	0.1027	1.1326	0.2576
PC 7	0.1787	0.1040	1.7185	0.0859
PC 8	0.3199	0.2611	1.2255	0.2206
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	89.4823	245.0000	1.7630	< 0.0001
Year Smooth	1.8783	19.0000	26.3486	< 0.0001
Station Random Effect	4.2974	7.0000	24.5457	< 0.0001

Table A3.123: Best productivity model for the White-eyed Vireo (*Vireo griseus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.5775	1.6463	-3.9953	0.0001
Noise Level	0.0269	0.0410	0.6566	0.5115
PC 1	-0.3005	0.1588	-1.8931	0.0585
PC 2	0.1389	0.1279	1.0862	0.2775
PC 3	-0.3465	0.1818	-1.9059	0.0568
PC 4	0.0137	0.1521	0.0902	0.9281
PC 5	-0.0039	0.1817	-0.0217	0.9827
PC 6	0.2126	0.1705	1.2463	0.2128
PC 7	-0.3512	0.1620	-2.1678	0.0303
PC 8	-0.1194	0.2414	-0.4945	0.6210
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	4.4890	19.0000	3081.1293	< 0.0001
Year Smooth	4.5324	7.0000	108.4404	< 0.0001
Station Random Effect	209.9784	258.0000	7.6952	< 0.0001

Table A3.124: Best abundance model for the White-eyed Vireo (*Vireo griseus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.8035	0.2136	-8.4439	< 0.0001
Noise Standard Deviation	-0.1473	0.1901	-0.7748	0.4386
PC 1	-0.4171	0.1076	-3.8766	0.0001
PC 2	-0.0583	0.1136	-0.5133	0.6078
PC 3	-0.3685	0.1338	-2.7547	0.0059
PC 4	0.0092	0.1169	0.0785	0.9374
PC 5	0.0215	0.1488	0.1444	0.8852
PC 6	0.2193	0.1523	1.4399	0.1501
PC 7	0.1533	0.1618	0.9469	0.3438
PC 8	-0.9138	0.2849	-3.2072	0.0014
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	113.8732	235.0000	3.5792	< 0.0001
Year Smooth	8.7288	19.0000	391.9643	0.0003
Station Random Effect	1.4231	7.0000	6.8090	0.0255

Table A3.125: Best productivity model for the Wilson's Warbler (*Cardellina pusilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.7064	1.5457	-2.3979	0.0166
Noise Level	-0.0408	0.0438	-0.9326	0.3511
Noise Standard Deviation	0.2853	0.1823	1.5653	0.1177
PC 1	0.1302	0.1399	0.9307	0.3521
PC 2	0.0684	0.0969	0.7062	0.4801
PC 3	-0.0494	0.1055	-0.4680	0.6398
PC 4	-0.0504	0.0969	-0.5201	0.6030
PC 5	-0.0002	0.1159	-0.0021	0.9983
PC 6	-0.2077	0.1178	-1.7634	0.0780
PC 7	-0.0182	0.1396	-0.1302	0.8964
PC 8	-0.1653	0.2683	-0.6161	0.5379
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.0896	19.0000	2066.2913	0.0015
Year Smooth	4.6708	7.0000	41.6297	< 0.0001
Station Random Effect	181.7727	238.0000	9.3733	< 0.0001

Table A3.126: Best abundance model for the Wilson's Warbler (*Cardellina pusilla*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.1867	1.1024	-2.8908	0.0039
Noise Level	0.0260	0.0269	0.9668	0.3338
PC 1	0.0128	0.0918	0.1390	0.8895
PC 2	-0.1177	0.1007	-1.1683	0.2428
PC 3	-0.4947	0.2954	-1.6750	0.0941
PC 4	-0.1151	0.1465	-0.7857	0.4322
PC 5	0.0631	0.1682	0.3751	0.7076
PC 6	-0.0404	0.2891	-0.1398	0.8888
PC 7	0.1082	0.1346	0.8036	0.4218
PC 8	0.0162	0.0868	0.1865	0.8521
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	143.3546	322.0000	2.2492	< 0.0001
Year Smooth	0.0013	19.0000	0.0001	0.4622
Station Random Effect	0.0020	7.0000	0.0001	0.6323

Table A3.127: Best productivity model for the Wood Thrush (*Hylocichla mustelina*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.3228	1.4044	-5.2141	< 0.0001
Noise Level	0.0597	0.0345	1.7278	0.0841
PC 1	-0.1518	0.1171	-1.2963	0.1950
PC 2	-0.1316	0.1321	-0.9963	0.3192
PC 3	0.2008	0.3731	0.5383	0.5904
PC 4	-0.1823	0.1580	-1.1534	0.2489
PC 5	0.0382	0.1769	0.2157	0.8293
PC 6	-0.7247	0.3248	-2.2313	0.0258
PC 7	0.2429	0.1638	1.4824	0.1384
PC 8	0.0002	0.1086	0.0021	0.9983
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	11.8349	19.0000	1938.3552	< 0.0001
Year Smooth	4.1841	7.0000	90.5011	0.0003
Station Random Effect	260.8676	331.0000	9.9771	< 0.0001

Table A3.128: Best abundance model for the Wood Thrush (*Hylocichla mustelina*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-0.1044	0.1503	-0.6946	0.4876
Noise Standard Deviation	-0.1149	0.1236	-0.9297	0.3529
PC 1	-0.0852	0.0578	-1.4742	0.1409
PC 2	-0.0494	0.0634	-0.7790	0.4363
PC 3	-0.0961	0.0759	-1.2661	0.2059
PC 4	0.1484	0.0829	1.7898	0.0740
PC 5	0.0706	0.0892	0.7916	0.4289
PC 6	-0.1442	0.0798	-1.8071	0.0712
PC 7	0.1393	0.0702	1.9823	0.0479
PC 8	0.0633	0.1291	0.4905	0.6239
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	26.7173	104.0000	0.7804	< 0.0001
Year Smooth	2.8340	19.0000	2.4774	0.0009
Station Random Effect	3.4833	7.0000	2.4644	0.0400

Table A3.129: Best productivity model for the Wrentit (*Chamaea fasciata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.3753	0.1684	-31.9123	< 0.0001
PC 1	0.4008	0.1028	3.8996	0.0001
PC 2	0.3993	0.1236	3.2310	0.0013
PC 3	0.2884	0.1063	2.7132	0.0068
PC 4	0.5443	0.1356	4.0156	0.0001
PC 5	0.3265	0.1552	2.1035	0.0357
PC 6	-0.4395	0.1292	-3.4009	0.0007
PC 7	-0.1766	0.1571	-1.1243	0.2612
PC 8	-0.3247	0.2822	-1.1506	0.2502
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	0.0004	19.0000	0.0000	0.9437
Year Smooth	1.0409	7.0000	21.8140	0.0317
Station Random Effect	93.3017	113.0000	10.8136	< 0.0001

Table A3.130: Best abundance model for the Wrentit (*Chamaea fasciata*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.1225	0.6255	-3.3934	0.0009
Noise Standard Deviation	0.3182	0.4379	0.7268	0.4684
PC 1	-0.0500	0.1728	-0.2891	0.7729
PC 2	-0.0337	0.2191	-0.1539	0.8779
PC 3	-0.5025	0.6382	-0.7874	0.4322
PC 4	0.1204	0.3509	0.3430	0.7320
PC 5	-0.0525	0.4231	-0.1242	0.9013
PC 6	0.3984	0.6658	0.5983	0.5504
PC 7	-0.0998	0.2342	-0.4263	0.6705
PC 8	0.0618	0.3703	0.1669	0.8677
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	7.0137	40.0000	0.3427	0.0047
Year Smooth	2.7148	19.0000	0.6054	0.1354
Station Random Effect	0.0002	7.0000	0.0000	0.4998

Table A3.131: Best productivity model for the White-throated Sparrow (*Zonotrichia albicollis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-3.4544	1.0421	-3.3147	0.0010
Noise Standard Deviation	-1.9385	0.7727	-2.5088	0.0127
PC 1	0.0998	0.2513	0.3973	0.6914
PC 2	-0.0043	0.3488	-0.0125	0.9901
PC 3	0.7942	0.9063	0.8763	0.3816
PC 4	-0.6124	0.5344	-1.1461	0.2527
PC 5	1.8959	0.6362	2.9801	0.0031
PC 6	1.9252	1.1532	1.6695	0.0961
PC 7	-0.2542	0.3575	-0.7110	0.4776
PC 8	0.2279	0.3949	0.5770	0.5644
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	1.7211	19.0000	207.5074	0.0245
Year Smooth	5.8443	7.0000	81.1486	< 0.0001
Station Random Effect	36.0342	46.0000	8.3351	< 0.0001

Table A3.132: Best abundance model for the White-throated Sparrow (*Zonotrichia albicollis*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-2.2308	0.1059	-21.0628	< 0.0001
PC 1	-0.3164	0.1545	-2.0487	0.0407
PC 2	0.1598	0.1121	1.4258	0.1542
PC 3	-0.1941	0.0868	-2.2361	0.0255
PC 4	0.0325	0.0839	0.3875	0.6985
PC 5	0.0634	0.0666	0.9522	0.3412
PC 6	0.0271	0.0911	0.2974	0.7662
PC 7	-0.0584	0.0945	-0.6179	0.5367
PC 8	-0.2770	0.2826	-0.9804	0.3271
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	88.4922	304.0000	0.6415	< 0.0001
Year Smooth	4.9473	19.0000	76.2308	< 0.0001
Station Random Effect	4.7569	7.0000	8.9024	0.0001

Table A3.133: Best productivity model for the Yellow-breasted Chat (*Icteria virens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-5.2072	1.7948	-2.9013	0.0038
Noise Level	-0.0214	0.0479	-0.4463	0.6554
Noise Standard Deviation	0.3429	0.2765	1.2402	0.2150
PC 1	-0.1331	0.1730	-0.7693	0.4418
PC 2	0.1221	0.1322	0.9237	0.3557
PC 3	0.1821	0.1281	1.4218	0.1552
PC 4	-0.0153	0.1125	-0.1356	0.8921
PC 5	0.0291	0.1089	0.2669	0.7896
PC 6	0.0840	0.1293	0.6498	0.5159
PC 7	0.0205	0.1339	0.1529	0.8785
PC 8	-0.3616	0.3292	-1.0983	0.2722
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	12.6001	19.0000	15420.6455	0.0002
Year Smooth	3.8755	7.0000	1245.6819	< 0.0001
Station Random Effect	258.1030	311.0000	16.0151	< 0.0001

Table A3.134: Best abundance model for the Yellow-breasted Chat (*Icteria virens*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-15.2637	16.4868	-0.9258	0.3550
Noise Level	0.2373	0.4018	0.5905	0.5551
PC 1	-0.4568	2.1180	-0.2157	0.8293
PC 2	0.4461	1.6418	0.2717	0.7860
PC 3	0.6672	0.7684	0.8682	0.3857
PC 4	-0.7352	2.6011	-0.2827	0.7776
PC 5	-0.0844	2.8470	-0.0296	0.9764
PC 6	-0.4196	1.6551	-0.2535	0.8000
PC 7	0.2495	2.3231	0.1074	0.9145
PC 8	-1.3928	2.9762	-0.4680	0.6400
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	48.1320	198.0000	0.1652	0.9898
Year Smooth	0.0001	19.0000	0.0000	1.0000
Station Random Effect	4.9260	7.0000	13.5999	0.2927

Table A3.135: Best productivity model for the Yellow-billed Cuckoo (*Coccyzus americanus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-7.2793	0.2024	-35.9673	< 0.0001
Noise Standard Deviation	0.0747	0.2300	0.3246	0.7455
PC 1	0.0565	0.0916	0.6172	0.5372
PC 2	0.2505	0.0940	2.6656	0.0078
PC 3	0.2176	0.1086	2.0042	0.0452
PC 4	-0.1537	0.1299	-1.1831	0.2369
PC 5	-0.0547	0.1393	-0.3923	0.6949
PC 6	-0.0120	0.1025	-0.1169	0.9069
PC 7	0.0338	0.1313	0.2575	0.7968
PC 8	0.0054	0.1390	0.0390	0.9689
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	6.5639	19.0000	30.9373	0.0007
Year Smooth	2.4364	7.0000	4.8120	0.0063
Station Random Effect	121.8483	207.0000	2.0653	< 0.0001

Table A3.136: Best abundance model for the Yellow-billed Cuckoo (*Coccyzus americanus*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-1.6743	0.0672	-24.9337	< 0.0001
PC 1	-0.0733	0.0588	-1.2468	0.2126
PC 2	0.0148	0.0565	0.2619	0.7934
PC 3	0.0658	0.0554	1.1887	0.2347
PC 4	-0.0084	0.0487	-0.1718	0.8636
PC 5	0.0030	0.0566	0.0536	0.9572
PC 6	-0.1000	0.0654	-1.5285	0.1265
PC 7	0.1793	0.0516	3.4784	0.0005
PC 8	-0.0189	0.1380	-0.1370	0.8910
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	136.5441	402.0000	1.5130	< 0.0001
Year Smooth	10.0492	19.0000	61.5396	0.0369
Station Random Effect	5.5344	7.0000	25.8853	< 0.0001

Table A3.137: Best productivity model for the Yellow Warbler (*Setophaga petechia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

A. parametric coefficients	Estimate	Std. Error	t-value	p-value
Intercept	-6.5718	1.3732	-4.7856	< 0.0001
Noise Level	0.0369	0.0375	0.9834	0.3255
PC 1	0.1892	0.1192	1.5875	0.1125
PC 2	0.2634	0.0917	2.8739	0.0041
PC 3	0.0984	0.0914	1.0766	0.2817
PC 4	-0.1026	0.0765	-1.3412	0.1800
PC 5	-0.1027	0.0881	-1.1654	0.2439
PC 6	-0.0613	0.0962	-0.6374	0.5239
PC 7	0.1399	0.0886	1.5791	0.1144
PC 8	-0.0164	0.2064	-0.0793	0.9368
B. smooth terms	edf	Ref.df	F-value	p-value
Location Smooth	13.2391	19.0000	34498.6745	< 0.0001
Year Smooth	6.0438	7.0000	911.2041	< 0.0001
Station Random Effect	344.2253	417.0000	13.5456	< 0.0001

Table A3.138: Best abundance model for the Yellow Warbler (*Setophaga petechia*). The model was a quasi-Poisson GAMM with log link function. Based on AIC/QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.