Appendix 4:
Model selection tables 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.

Abundance Models

name	QIC	delta QIC	Akaike weight
No Noise Terms	5458.77	0.00	0.59
No Mean Noise Term	5460.58	1.82	0.24
No Noise Variability Term	5462.05	3.29	0.11
Full Model	5463.23	4.47	0.06

Table A4.1: Model selection information for the abundance model for the Acadian Flycatcher (*Empidonax virescens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	6493.34	0.00	0.43
No Noise Variability Term	6494.32	0.98	0.26
No Mean Noise Term	6495.03	1.70	0.18
No Noise Terms	6495.82	2.48	0.12

Table A4.2: Model selection information for the abundance model for the American Goldfinch (*Spinus tristis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	4151.80	0.00	0.59
No Mean Noise Term	4153.19	1.39	0.30
No Noise Variability Term	4156.10	4.30	0.07
No Noise Terms	4157.02	5.23	0.04

Table A4.3: Model selection information for the abundance model for the American Redstart (*Setophaga ruticilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	11975.09	0.00	0.29
Full Model	11975.23	0.14	0.27
No Noise Terms	11975.53	0.44	0.23
No Mean Noise Term	11975.75	0.66	0.21

Table A4.4: Model selection information for the abundance model for the American Robin (*Turdus migratorius*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	2209.29	0.00	0.50
Full Model	2210.47	1.18	0.28
No Noise Terms	2211.78	2.48	0.15
No Noise Variability Term	2213.12	3.83	0.07

Table A4.5: Model selection information for the abundance model for the Ash-throated Flycatcher (*Myiarchus cinerascens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	4294.39	0.00	0.38
Full Model	4295.36	0.97	0.23
No Noise Terms	4295.69	1.29	0.20
No Noise Variability Term	4295.82	1.43	0.19

Table A4.6: Model selection information for the abundance model for the Audubon's Warbler (*Setophaga coronata auduboni*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	6287.74	0.00	0.48
Full Model	6289.14	1.40	0.24
No Noise Terms	6289.70	1.96	0.18
No Mean Noise Term	6290.68	2.94	0.11

Table A4.7: Model selection information for the abundance model for the Black-capped Chickadee (*Poecile atricapillus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	2048.61	0.00	0.29
No Noise Terms	2048.79	0.19	0.27
Full Model	2049.00	0.40	0.24
No Mean Noise Term	2049.30	0.69	0.21

Table A4.8: Model selection information for the abundance model for the Black-chinned Hummingbird (*Archilochus alexandri*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	4467.89	0.00	0.28
No Noise Terms	4468.10	0.20	0.25
Full Model	4468.17	0.28	0.24
No Mean Noise Term	4468.22	0.33	0.23

Table A4.9: Model selection information for the abundance model for the Bewick's Wren (*Thryomanes bewickii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	6231.16	0.00	0.41
Full Model	6232.30	1.14	0.23
No Noise Terms	6232.38	1.22	0.22
No Noise Variability Term	6233.34	2.18	0.14

Table A4.10: Model selection information for the abundance model for the Black-headed Grosbeak (*Pheucticus melanocephalus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	229.20	0.00	0.38
No Noise Terms	230.16	0.96	0.24
Full Model	230.49	1.29	0.20
No Mean Noise Term	230.76	1.56	0.18

Table A4.11: Model selection information for the abundance model for the Bobolink (*Dolichonyx oryzivorus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	2371.25	0.00	0.29
No Mean Noise Term	2371.31	0.06	0.28
No Noise Terms	2371.80	0.55	0.22
No Noise Variability Term	2371.96	0.71	0.20

Table A4.12: Model selection information for the abundance model for the Bushtit (*Psaltriparus minimus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1712.41	0.00	0.31
No Mean Noise Term	1712.63	0.22	0.28
No Noise Variability Term	1713.02	0.61	0.23
Full Model	1713.47	1.06	0.18

Table A4.13: Model selection information for the abundance model for the Cassin's Finch (*Haemorhous cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	6604.88	0.00	0.35
Full Model	6605.01	0.13	0.33
No Mean Noise Term	6606.38	1.50	0.16
No Noise Terms	6606.43	1.55	0.16

Table A4.14: Model selection information for the abundance model for the Carolina Wren (*Thryothorus ludovicianus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	3114.19	0.00	0.68
Full Model	3116.35	2.15	0.23
No Noise Terms	3118.97	4.77	0.06
No Mean Noise Term	3121.06	6.86	0.02

Table A4.15: Model selection information for the abundance model for the Cassin's Vireo (*Vireo cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	4027.51	0.00	0.28
No Noise Variability Term	4027.63	0.12	0.26
No Mean Noise Term	4027.76	0.25	0.25
No Noise Terms	4028.05	0.54	0.21

Table A4.16: Model selection information for the abundance model for the Cedar Waxwing (*Bombycilla cedrorum*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	4953.61	0.00	0.41
No Mean Noise Term	4954.46	0.85	0.27
No Noise Terms	4954.98	1.37	0.20
No Noise Variability Term	4956.00	2.39	0.12

Table A4.17: Model selection information for the abundance model for the Chipping Sparrow (*Spizella passerina*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	9302.44	0.00	0.29
Full Model	9302.66	0.22	0.26
No Noise Terms	9302.90	0.46	0.23
No Mean Noise Term	9303.09	0.66	0.21

Table A4.18: Model selection information for the abundance model for the Common Yellowthroat (*Geothlypis trichas*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	4574.84	0.00	0.44
No Mean Noise Term	4575.63	0.79	0.30
Full Model	4577.20	2.36	0.14
No Noise Variability Term	4577.47	2.63	0.12

Table A4.19: Model selection information for the abundance model for the Dark-eyed Junco (*Junco hyemalis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	3310.22	0.00	0.35
Full Model	3310.47	0.26	0.30
No Noise Terms	3311.36	1.14	0.20
No Mean Noise Term	3311.81	1.60	0.16

Table A4.20: Model selection information for the abundance model for the Dusky Flycatcher (*Empidonax oberholseri*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1929.70	0.00	0.54
Full Model	1930.13	0.43	0.43
No Noise Terms	1936.51	6.81	0.02
No Noise Variability Term	1936.92	7.22	0.01

Table A4.21: Model selection information for the abundance model for the Eastern Bluebird (*Sialia sialis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	-1863.59	0.00	1.00
No Mean Noise Term	-961.44	902.15	0.00
Full Model	25.18	1888.77	0.00
No Noise Terms	299.09	2162.67	0.00

Table A4.22: Model selection information for the abundance model for the Eastern Meadowlark (*Sturnella magna*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	922.03	0.00	0.37
Full Model	922.14	0.11	0.35
No Noise Variability Term	923.84	1.81	0.15
No Noise Terms	924.01	1.98	0.14

Table A4.23: Model selection information for the abundance model for the Evening Grosbeak (*Coccothraustes vespertinus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	4151.57	0.00	0.46
Full Model	4151.66	0.09	0.44
No Noise Terms	4155.76	4.19	0.06
No Mean Noise Term	4155.90	4.33	0.05

Table A4.24: Model selection information for the abundance model for the Great Crested Flycatcher (*Myiarchus crinitus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3166.93	0.00	0.53
Full Model	3167.28	0.35	0.44
No Noise Terms	3173.79	6.86	0.02
No Noise Variability Term	3174.83	7.90	0.01

Table A4.25: Model selection information for the abundance model for the Golden-crowned Kinglet (*Regulus satrapa*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	6420.42	0.00	0.60
No Noise Variability Term	6421.45	1.03	0.36
Full Model	6426.48	6.06	0.03
No Noise Terms	6427.34	6.92	0.02

Table A4.26: Model selection information for the abundance model for the Gray Catbird (*Dumetella carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	643.51	0.00	0.48
No Noise Terms	644.87	1.35	0.25
No Mean Noise Term	645.56	2.05	0.17
No Noise Variability Term	646.75	3.23	0.10

Table A4.27: Model selection information for the abundance model for the Gray Flycatcher (*Empidonax wrightii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3281.26	0.00	0.39
Full Model	3281.97	0.70	0.28
No Noise Terms	3282.87	1.61	0.18
No Noise Variability Term	3283.11	1.84	0.16

Table A4.28: Model selection information for the abundance model for the Hammond's Flycatcher (*Empidonax hammondii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	4715.19	0.00	0.49
No Noise Variability Term	4715.58	0.38	0.40
No Noise Terms	4719.31	4.12	0.06
No Mean Noise Term	4719.74	4.55	0.05

Table A4.29: Model selection information for the abundance model for the Hermit Thrush (*Catharus guttatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	3072.36	0.00	0.29
No Noise Terms	3072.50	0.14	0.27
Full Model	3072.87	0.51	0.23
No Mean Noise Term	3073.01	0.64	0.21

Table A4.30: Model selection information for the abundance model for the House Finch (*Haemorhous mexicanus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	843.31	0.00	0.32
No Mean Noise Term	843.92	0.61	0.24
Full Model	844.00	0.69	0.23
No Noise Variability Term	844.05	0.74	0.22

Table A4.31: Model selection information for the abundance model for the House Sparrow (*Passer domesticus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	5665.85	0.00	0.31
No Mean Noise Term	5665.96	0.11	0.29
No Noise Variability Term	5666.68	0.83	0.20
Full Model	5666.75	0.90	0.20

Table A4.32: Model selection information for the abundance model for the House Wren (*Troglodytes aedon*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	5847.38	0.00	0.57
No Noise Terms	5847.94	0.56	0.43

Table A4.33: Model selection information for the abundance model for the Indigo Bunting (*Passerina cyanea*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	3381.88	0.00	0.48
No Mean Noise Term	3382.00	0.12	0.46
No Noise Variability Term	3387.31	5.43	0.03
Full Model	3387.55	5.67	0.03

Table A4.34: Model selection information for the abundance model for the Lazuli Bunting (*Passerina amoena*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1575.87	0.00	0.37
No Noise Terms	1576.08	0.22	0.33
Full Model	1577.66	1.79	0.15
No Mean Noise Term	1577.72	1.86	0.15

Table A4.35: Model selection information for the abundance model for the Least Flycatcher (*Empidonax minimus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	2664.05	0.00	0.30
No Noise Terms	2664.12	0.07	0.29
Full Model	2664.74	0.69	0.21
No Mean Noise Term	2664.79	0.73	0.21

Table A4.36: Model selection information for the abundance model for the Lincoln's Sparrow (*Melospiza lincolnii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	884.08	0.00	0.40
Full Model	884.12	0.04	0.39
No Mean Noise Term	885.92	1.84	0.16
No Noise Terms	887.88	3.80	0.06

Table A4.37: Model selection information for the abundance model for the Magnolia Warbler (*Setophaga magnolia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	5614.97	0.00	0.27
No Noise Terms	5615.11	0.14	0.26
Full Model	5615.18	0.21	0.25
No Noise Variability Term	5615.37	0.40	0.22

Table A4.38: Model selection information for the abundance model for the MacGillivray's Warbler (*Geothlypis tolmiei*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3035.09	0.00	0.34
No Noise Terms	3035.30	0.21	0.30
Full Model	3036.10	1.01	0.20
No Noise Variability Term	3036.58	1.48	0.16

Table A4.39: Model selection information for the abundance model for the Mountain Chickadee (*Poecile gambeli*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2079.11	0.00	0.33
No Noise Variability Term	2079.74	0.64	0.24
No Mean Noise Term	2079.80	0.69	0.23
Full Model	2080.17	1.06	0.19

Table A4.40: Model selection information for the abundance model for the Mourning Dove (*Zenaida macroura*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	695.49	0.00	0.86
Full Model	699.19	3.71	0.14
No Mean Noise Term	726.06	30.58	0.00
No Noise Terms	729.09	33.61	0.00

Table A4.41: Model selection information for the abundance model for the Myrtle Warbler (*Setophaga coronata coronata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	2418.43	0.00	0.29
No Noise Terms	2418.51	0.08	0.27
Full Model	2418.86	0.43	0.23
No Mean Noise Term	2419.05	0.63	0.21

Table A4.42: Model selection information for the abundance model for the Nashville Warbler (*Oreothlypis ruficapilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	9974.57	0.00	0.57
No Noise Terms	9975.28	0.72	0.40
Full Model	9981.77	7.21	0.02
No Noise Variability Term	9982.56	8.00	0.01

Table A4.43: Model selection information for the abundance model for the Northern Cardinal (*Cardinalis cardinalis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	3324.69	0.00	0.42
No Noise Variability Term	3325.62	0.93	0.27
No Noise Terms	3326.63	1.94	0.16
No Mean Noise Term	3326.77	2.08	0.15

Table A4.44: Model selection information for the abundance model for the Orange-crowned Warbler (*Oreothlypis celata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	6715.55	0.00	0.61
No Noise Variability Term	6716.71	1.16	0.34
No Mean Noise Term	6721.23	5.68	0.04
No Noise Terms	6722.46	6.91	0.02

Table A4.45: Model selection information for the abundance model for the Ovenbird (*Seiurus aurocapilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2463.75	0.00	0.29
No Noise Variability Term	2464.06	0.30	0.25
Full Model	2464.20	0.45	0.23
No Mean Noise Term	2464.29	0.54	0.22

Table A4.46: Model selection information for the abundance model for the Pine Siskin (*Spinus pinus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	3752.59	0.00	1.00
No Noise Variability Term	3771.26	18.68	0.00
No Mean Noise Term	3772.56	19.98	0.00
No Noise Terms	3778.45	25.87	0.00

Table A4.47: Model selection information for the abundance model for the Red-breasted Nuthatch (*Sitta canadensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1586.90	0.00	0.51
No Noise Terms	1588.34	1.43	0.25
Full Model	1589.20	2.30	0.16
No Mean Noise Term	1590.85	3.94	0.07

Table A4.48: Model selection information for the abundance model for the Ruby-crowned Kinglet (*Regulus calendula*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	7920.33	0.00	0.48
No Mean Noise Term	7920.40	0.07	0.46
No Noise Terms	7926.03	5.70	0.03
No Noise Variability Term	7926.10	5.77	0.03

Table A4.49: Model selection information for the abundance model for the Red-eyed Vireo (*Vireo olivaceus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2390.60	0.00	0.28
No Mean Noise Term	2390.68	0.07	0.26
No Noise Variability Term	2390.89	0.28	0.24
Full Model	2391.04	0.43	0.22

Table A4.50: Model selection information for the abundance model for the Rufous Hummingbird (*Selasphorus rufus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	3710.43	0.00	0.81
No Noise Variability Term	3714.78	4.35	0.09
No Mean Noise Term	3715.08	4.65	0.08
No Noise Terms	3718.66	8.23	0.01

Table A4.51: Model selection information for the abundance model for the Scarlet Tanager (*Piranga olivacea*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	9455.69	0.00	0.36
Full Model	9455.73	0.04	0.35
No Noise Terms	9457.49	1.80	0.15
No Noise Variability Term	9457.61	1.92	0.14

Table A4.52: Model selection information for the abundance model for the Song Sparrow (*Melospiza melodia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	5325.28	0.00	0.34
No Mean Noise Term	5325.63	0.35	0.28
No Noise Variability Term	5326.22	0.94	0.21
Full Model	5326.63	1.35	0.17

Table A4.53: Model selection information for the abundance model for the Spotted Towhee (*Pipilo maculatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	5524.35	0.00	0.33
No Mean Noise Term	5524.47	0.13	0.31
No Noise Variability Term	5525.50	1.16	0.19
Full Model	5525.63	1.29	0.17

Table A4.54: Model selection information for the abundance model for the Swainson's Thrush (*Catharus ustulatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	865.08	0.00	0.97
Full Model	871.95	6.86	0.03
No Noise Terms	877.24	12.15	0.00
No Noise Variability Term	879.19	14.10	0.00

Table A4.55: Model selection information for the abundance model for the Townsend's Solitaire (*Myadestes townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1305.16	0.00	0.51
No Noise Terms	1305.25	0.08	0.48
Full Model	1313.06	7.89	0.01
No Noise Variability Term	1322.69	17.53	0.00

Table A4.56: Model selection information for the abundance model for the Townsend's Warbler (*Setophaga townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	6577.93	0.00	0.40
No Mean Noise Term	6578.39	0.46	0.31
No Noise Terms	6579.84	1.91	0.15
No Noise Variability Term	6580.02	2.09	0.14

Table A4.57: Model selection information for the abundance model for the Warbling Vireo (*Vireo gilvus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	4344.52	0.00	0.58
No Noise Terms	4346.59	2.06	0.21
Full Model	4347.12	2.60	0.16
No Mean Noise Term	4349.15	4.63	0.06

Table A4.58: Model selection information for the abundance model for the White-breasted Nuthatch (*Sitta carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	263.59	0.00	0.31
Full Model	263.90	0.31	0.27
No Noise Terms	264.20	0.61	0.23
No Noise Variability Term	264.55	0.96	0.19

Table A4.59: Model selection information for the abundance model for the White-crowned Sparrow (*Zonotrichia leucophrys*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	679.61	0.00	0.50
Full Model	680.13	0.52	0.39
No Noise Variability Term	684.05	4.44	0.05
No Noise Terms	684.12	4.51	0.05

Table A4.60: Model selection information for the abundance model for the Western Bluebird (*Sialia mexicana*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	1784.68	0.00	0.53
No Noise Variability Term	1785.35	0.66	0.38
No Mean Noise Term	1789.35	4.67	0.05
No Noise Terms	1789.90	5.22	0.04

Table A4.61: Model selection information for the abundance model for the Western Scrub-Jay (*Aphelocoma californica*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	4407.47	0.00	0.31
Full Model	4407.80	0.33	0.26
No Noise Terms	4408.04	0.57	0.23
No Noise Variability Term	4408.39	0.92	0.20

Table A4.62: Model selection information for the abundance model for the Western Tanager (*Piranga ludoviciana*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	4131.96	0.00	0.49
Full Model	4132.05	0.09	0.47
No Mean Noise Term	4137.67	5.71	0.03
No Noise Terms	4141.01	9.05	0.01

Table A4.63: Model selection information for the abundance model for the White-eyed Vireo (*Vireo griseus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	3990.06	0.00	0.28
No Noise Variability Term	3990.28	0.22	0.25
No Mean Noise Term	3990.33	0.28	0.24
No Noise Terms	3990.36	0.30	0.24

Table A4.64: Model selection information for the abundance model for the Wilson's Warbler (*Cardellina pusilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	5554.55	0.00	0.46
Full Model	5555.48	0.92	0.29
No Noise Terms	5556.96	2.41	0.14
No Mean Noise Term	5557.39	2.83	0.11

Table A4.65: Model selection information for the abundance model for the Wood Thrush (*Hylocichla mustelina*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1853.90	0.00	0.30
No Noise Variability Term	1854.19	0.29	0.26
No Mean Noise Term	1854.25	0.35	0.25
Full Model	1854.75	0.86	0.19

Table A4.66: Model selection information for the abundance model for the Wrentit (*Chamaea fasciata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	703.62	0.00	0.43
Full Model	703.86	0.24	0.38
No Noise Variability Term	705.56	1.94	0.16
No Noise Terms	709.59	5.97	0.02

Table A4.67: Model selection information for the abundance model for the White-throated Sparrow (*Zonotrichia albicollis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	4792.71	0.00	0.51
No Mean Noise Term	4794.37	1.66	0.22
No Noise Variability Term	4795.27	2.56	0.14
No Noise Terms	4795.64	2.93	0.12

Table A4.68: Model selection information for the abundance model for the Yellow-breasted Chat (*Icteria virens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3157.60	0.00	0.29
No Noise Terms	3157.97	0.37	0.24
Full Model	3157.99	0.39	0.24
No Noise Variability Term	3158.19	0.59	0.22

Table A4.69: Model selection information for the abundance model for the Yellow-billed Cuckoo (*Coccyzus americanus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	6259.08	0.00	0.32
Full Model	6259.28	0.20	0.29
No Mean Noise Term	6260.04	0.96	0.20
No Noise Terms	6260.18	1.10	0.19

Table A4.70: Model selection information for the abundance model for the Yellow Warbler (*Setophaga petechia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of abundance was: weak; support for including the standard deviation of noise was: none.

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name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1843.32	0.00	0.47
No Noise Terms	1844.53	1.21	0.26
Full Model	1845.77	2.44	0.14
No Noise Variability Term	1845.91	2.59	0.13

Table A4.71: Model selection information for the productivity model for the Acadian Flycatcher (*Empidonax virescens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1536.66	0.00	0.34
No Mean Noise Term	1537.36	0.69	0.24
No Noise Variability Term	1537.36	0.70	0.24
Full Model	1538.06	1.40	0.17

Table A4.72: Model selection information for the productivity model for the American Goldfinch (*Spinus tristis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1422.97	0.00	0.53
Full Model	1423.55	0.57	0.40
No Noise Terms	1428.07	5.09	0.04
No Mean Noise Term	1428.77	5.80	0.03

Table A4.73: Model selection information for the productivity model for the American Redstart (*Setophaga ruticilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	5457.13	0.00	0.61
Full Model	5459.03	1.90	0.24
No Noise Terms	5460.80	3.68	0.10
No Mean Noise Term	5461.89	4.76	0.06

Table A4.74: Model selection information for the productivity model for the American Robin (*Turdus migratorius*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	942.14	0.00	0.43
No Noise Variability Term	942.58	0.43	0.35
No Mean Noise Term	944.55	2.41	0.13
Full Model	945.21	3.07	0.09

Table A4.75: Model selection information for the productivity model for the Ash-throated Flycatcher (*Myiarchus cinerascens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1400.59	0.00	0.31
No Mean Noise Term	1400.98	0.39	0.26
No Noise Variability Term	1401.14	0.54	0.24
Full Model	1401.52	0.93	0.20

Table A4.76: Model selection information for the productivity model for the Audubon's Warbler (*Setophaga coronata auduboni*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	2762.70	0.00	0.37
Full Model	2762.88	0.18	0.34
No Noise Terms	2764.42	1.72	0.16
No Noise Variability Term	2764.77	2.07	0.13

Table A4.77: Model selection information for the productivity model for the Black-capped Chickadee (*Poecile atricapillus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Terms	650.00	0.00	0.38
No Mean Noise Term	650.58	0.59	0.29
No Noise Variability Term	651.19	1.19	0.21
Full Model	652.32	2.33	0.12

Table A4.78: Model selection information for the productivity model for the Black-chinned Hummingbird (*Archilochus alexandri*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1752.30	0.00	0.34
No Noise Variability Term	1752.93	0.63	0.25
No Mean Noise Term	1753.00	0.70	0.24
Full Model	1753.74	1.44	0.17

Table A4.79: Model selection information for the productivity model for the Bewick's Wren (*Thryomanes bewickii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	2527.20	0.00	0.33
No Noise Variability Term	2527.37	0.17	0.30
No Mean Noise Term	2528.00	0.80	0.22
No Noise Terms	2528.87	1.67	0.14

Table A4.80: Model selection information for the productivity model for the Black-headed Grosbeak (*Pheucticus melanocephalus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	129.96	0.00	0.36
No Mean Noise Term	130.44	0.48	0.28
Full Model	131.15	1.19	0.20
No Noise Variability Term	131.44	1.49	0.17

Table A4.81: Model selection information for the productivity model for the Bobolink (*Dolichonyx oryzivorus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	1090.93	0.00	0.37
No Noise Variability Term	1091.64	0.71	0.26
No Mean Noise Term	1091.92	0.99	0.22
Full Model	1092.66	1.73	0.15

Table A4.82: Model selection information for the productivity model for the Bushtit (*Psaltriparus minimus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	487.58	0.00	0.32
Full Model	488.19	0.61	0.23
No Noise Terms	488.24	0.66	0.23
No Noise Variability Term	488.34	0.76	0.22

Table A4.83: Model selection information for the productivity model for the Cassin's Finch (*Haemorhous cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	2880.80	0.00	0.27
No Mean Noise Term	2880.80	0.01	0.27
No Noise Terms	2881.17	0.37	0.23
No Noise Variability Term	2881.19	0.40	0.22

Table A4.84: Model selection information for the productivity model for the Carolina Wren (*Thryothorus ludovicianus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
Full Model	916.74	0.00	0.97
No Noise Variability Term	924.10	7.36	0.02
No Noise Terms	926.61	9.86	0.01
No Mean Noise Term	933.22	16.48	0.00

Table A4.85: Model selection information for the productivity model for the Cassin's Vireo (*Vireo cassinii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	1136.37	0.00	0.91
No Mean Noise Term	1141.74	5.37	0.06
No Noise Terms	1143.86	7.49	0.02
No Noise Variability Term	1148.07	11.70	0.00

Table A4.86: Model selection information for the productivity model for the Cedar Waxwing (*Bombycilla cedrorum*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1623.25	0.00	0.34
No Noise Terms	1623.46	0.21	0.30
Full Model	1624.39	1.14	0.19
No Noise Variability Term	1624.59	1.34	0.17

Table A4.87: Model selection information for the productivity model for the Chipping Sparrow (*Spizella passerina*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	4399.42	0.00	0.42
No Mean Noise Term	4399.44	0.02	0.41
Full Model	4402.53	3.12	0.09
No Noise Variability Term	4402.70	3.28	0.08

Table A4.88: Model selection information for the productivity model for the Common Yellowthroat (*Geothlypis trichas*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1968.43	0.00	0.30
No Noise Terms	1968.60	0.18	0.27
Full Model	1968.91	0.49	0.23
No Mean Noise Term	1969.24	0.81	0.20

Table A4.89: Model selection information for the productivity model for the Dark-eyed Junco (*Junco hyemalis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1154.26	0.00	0.37
Full Model	1155.08	0.82	0.24
No Noise Terms	1155.10	0.85	0.24
No Mean Noise Term	1156.03	1.77	0.15

Table A4.90: Model selection information for the productivity model for the Dusky Flycatcher (*Empidonax oberholseri*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	592.17	0.00	0.48
Full Model	593.05	0.88	0.31
No Noise Terms	594.94	2.78	0.12
No Noise Variability Term	595.53	3.37	0.09

Table A4.91: Model selection information for the productivity model for the Eastern Bluebird (*Sialia sialis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	227.66	0.00	0.89
No Mean Noise Term	232.86	5.20	0.07
No Noise Variability Term	234.27	6.61	0.03
No Noise Terms	236.23	8.57	0.01

Table A4.92: Model selection information for the productivity model for the Evening Grosbeak (*Coccothraustes vespertinus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	539.42	0.00	0.46
Full Model	540.11	0.69	0.33
No Noise Terms	542.03	2.61	0.13
No Noise Variability Term	542.80	3.37	0.09

Table A4.93: Model selection information for the productivity model for the Great Crested Flycatcher (*Myiarchus crinitus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Terms	714.71	0.00	0.31
No Mean Noise Term	715.00	0.29	0.27
No Noise Variability Term	715.38	0.67	0.22
Full Model	715.70	0.99	0.19

Table A4.94: Model selection information for the productivity model for the Golden-crowned Kinglet (*Regulus satrapa*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3931.07	0.00	0.43
Full Model	3931.37	0.29	0.37
No Noise Terms	3933.67	2.59	0.12
No Noise Variability Term	3934.20	3.12	0.09

Table A4.95: Model selection information for the productivity model for the Gray Catbird (*Dumetella carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	16.17	0.00	1.00
No Noise Terms	76.11	59.94	0.00
No Noise Variability Term	164.10	147.93	0.00
Full Model	167.18	151.01	0.00

Table A4.96: Model selection information for the productivity model for the Gray Flycatcher (*Empidonax wrightii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	1047.18	0.00	0.30
No Noise Variability Term	1047.33	0.15	0.28
No Mean Noise Term	1047.88	0.70	0.21
No Noise Terms	1047.95	0.77	0.21

Table A4.97: Model selection information for the productivity model for the Hammond's Flycatcher (*Empidonax hammondii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1490.97	0.00	0.65
Full Model	1493.03	2.06	0.23
No Noise Terms	1494.94	3.97	0.09
No Mean Noise Term	1497.45	6.48	0.03

Table A4.98: Model selection information for the productivity model for the Hermit Thrush (*Catharus guttatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1076.49	0.00	0.29
No Noise Terms	1076.66	0.18	0.27
Full Model	1076.99	0.50	0.23
No Noise Variability Term	1077.21	0.72	0.21

Table A4.99: Model selection information for the productivity model for the House Finch (*Haemorhous mexicanus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	201.90	0.00	0.36
Full Model	202.45	0.55	0.27
No Noise Variability Term	202.58	0.68	0.25
No Noise Terms	204.08	2.18	0.12

Table A4.100: Model selection information for the productivity model for the House Sparrow (*Passer domesticus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	2258.03	0.00	0.37
No Noise Terms	2258.72	0.69	0.26
Full Model	2259.14	1.12	0.21
No Mean Noise Term	2259.82	1.80	0.15

Table A4.101: Model selection information for the productivity model for the House Wren (*Troglodytes aedon*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	2544.97	0.00	0.38
Full Model	2545.43	0.45	0.30
No Noise Terms	2546.51	1.53	0.18
No Noise Variability Term	2546.87	1.90	0.15

Table A4.102: Model selection information for the productivity model for the Indigo Bunting (*Passerina cyanea*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1589.59	0.00	0.34
Full Model	1589.88	0.29	0.29
No Noise Terms	1590.68	1.09	0.20
No Noise Variability Term	1590.87	1.28	0.18

Table A4.103: Model selection information for the productivity model for the Lazuli Bunting (*Passerina amoena*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	531.84	0.00	0.58
No Noise Variability Term	532.56	0.72	0.41
Full Model	541.15	9.31	0.01
No Mean Noise Term	541.25	9.40	0.01

Table A4.104: Model selection information for the productivity model for the Least Flycatcher (*Empidonax minimus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1175.64	0.00	0.44
Full Model	1175.96	0.33	0.37
No Mean Noise Term	1178.02	2.38	0.13
No Noise Terms	1179.53	3.89	0.06

Table A4.105: Model selection information for the productivity model for the Lincoln's Sparrow (*Melospiza lincolnii*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	365.84	0.00	0.52
No Mean Noise Term	366.19	0.35	0.44
No Noise Variability Term	371.61	5.77	0.03
Full Model	373.75	7.91	0.01

Table A4.106: Model selection information for the productivity model for the Magnolia Warbler (*Setophaga magnolia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	2963.47	0.00	0.47
Full Model	2963.48	0.00	0.47
No Mean Noise Term	2968.44	4.97	0.04
No Noise Terms	2970.49	7.02	0.01

Table A4.107: Model selection information for the productivity model for the MacGillivray's Warbler (*Geothlypis tolmiei*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	844.93	0.00	0.47
No Mean Noise Term	845.40	0.47	0.37
Full Model	848.25	3.32	0.09
No Noise Variability Term	848.59	3.66	0.07

Table A4.108: Model selection information for the productivity model for the Mountain Chickadee (*Poecile gambeli*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	369.68	0.00	0.35
No Mean Noise Term	370.42	0.75	0.24
No Noise Variability Term	370.44	0.76	0.24
Full Model	371.19	1.51	0.17

Table A4.109: Model selection information for the productivity model for the Mourning Dove (*Zenaida macroura*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	163.34	0.00	1.00
No Noise Variability Term	177.48	14.15	0.00
No Mean Noise Term	193.23	29.89	0.00
No Noise Terms	194.86	31.52	0.00

Table A4.110: Model selection information for the productivity model for the Myrtle Warbler (*Setophaga coronata coronata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	844.90	0.00	0.39
No Noise Variability Term	844.93	0.03	0.38
No Mean Noise Term	847.24	2.34	0.12
No Noise Terms	847.50	2.61	0.11

Table A4.111: Model selection information for the productivity model for the Nashville Warbler (*Oreothlypis ruficapilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	4618.19	0.00	0.50
Full Model	4618.27	0.08	0.48
No Noise Terms	4625.73	7.54	0.01
No Mean Noise Term	4625.85	7.66	0.01

Table A4.112: Model selection information for the productivity model for the Northern Cardinal (*Cardinalis cardinalis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1661.56	0.00	0.30
No Noise Terms	1661.69	0.14	0.28
No Noise Variability Term	1662.26	0.70	0.21
Full Model	1662.31	0.76	0.21

Table A4.113: Model selection information for the productivity model for the Orange-crowned Warbler (*Oreothlypis celata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	3068.95	0.00	0.52
Full Model	3069.94	0.99	0.32
No Noise Terms	3072.34	3.39	0.10
No Noise Variability Term	3073.32	4.37	0.06

Table A4.114: Model selection information for the productivity model for the Ovenbird (*Seiurus aurocapilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	730.25	0.00	0.30
No Noise Terms	730.43	0.18	0.28
Full Model	730.77	0.52	0.23
No Mean Noise Term	731.19	0.94	0.19

Table A4.115: Model selection information for the productivity model for the Pine Siskin (*Spinus pinus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	1144.90	0.00	0.43
No Noise Terms	1146.08	1.19	0.24
Full Model	1146.25	1.35	0.22
No Noise Variability Term	1147.72	2.82	0.11

Table A4.116: Model selection information for the productivity model for the Red-breasted Nuthatch (*Sitta canadensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	493.59	0.00	0.32
No Mean Noise Term	494.09	0.50	0.25
No Noise Variability Term	494.35	0.76	0.22
Full Model	494.53	0.95	0.20

Table A4.117: Model selection information for the productivity model for the Ruby-crowned Kinglet (*Regulus calendula*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	2493.06	0.00	0.58
No Mean Noise Term	2493.79	0.73	0.40
No Noise Variability Term	2501.88	8.82	0.01
No Noise Terms	2502.65	9.59	0.00

Table A4.118: Model selection information for the productivity model for the Red-eyed Vireo (*Vireo olivaceus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	1031.74	0.00	0.34
No Mean Noise Term	1032.01	0.27	0.29
No Noise Terms	1032.83	1.09	0.19
No Noise Variability Term	1033.03	1.29	0.18

Table A4.119: Model selection information for the productivity model for the Rufous Hummingbird (*Selasphorus rufus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	819.92	0.00	0.32
No Mean Noise Term	820.39	0.47	0.25
No Noise Variability Term	820.51	0.59	0.24
Full Model	820.98	1.06	0.19

Table A4.120: Model selection information for the productivity model for the Scarlet Tanager (*Piranga olivacea*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	4868.38	0.00	0.36
No Noise Variability Term	4869.11	0.73	0.25
No Mean Noise Term	4869.28	0.90	0.23
Full Model	4870.11	1.73	0.15

Table A4.121: Model selection information for the productivity model for the Song Sparrow (*Melospiza melodia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2116.10	0.00	0.31
No Mean Noise Term	2116.44	0.34	0.26
No Noise Variability Term	2116.68	0.58	0.23
Full Model	2117.01	0.91	0.20

Table A4.122: Model selection information for the productivity model for the Spotted Towhee (*Pipilo maculatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	3042.85	0.00	0.96
No Noise Terms	3049.92	7.06	0.03
Full Model	3051.22	8.37	0.01
No Mean Noise Term	3057.06	14.21	0.00

Table A4.123: Model selection information for the productivity model for the Swainson's Thrush (*Catharus ustulatus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	153.32	0.00	0.48
No Mean Noise Term	154.09	0.77	0.33
No Noise Variability Term	155.76	2.44	0.14
No Noise Terms	158.14	4.82	0.04

Table A4.124: Model selection information for the productivity model for the Townsend's Solitaire (*Myadestes townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
Full Model	391.61	0.00	0.29
No Mean Noise Term	391.80	0.18	0.27
No Noise Terms	391.95	0.33	0.25
No Noise Variability Term	392.38	0.77	0.20

Table A4.125: Model selection information for the productivity model for the Townsend's Warbler (*Setophaga townsendi*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2349.02	0.00	0.45
No Mean Noise Term	2349.50	0.48	0.36
Full Model	2351.77	2.75	0.11
No Noise Variability Term	2352.52	3.49	0.08

Table A4.126: Model selection information for the productivity model for the Warbling Vireo (*Vireo gilvus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1166.87	0.00	0.44
Full Model	1167.23	0.36	0.37
No Noise Terms	1169.83	2.96	0.10
No Mean Noise Term	1170.16	3.29	0.09

Table A4.127: Model selection information for the productivity model for the White-breasted Nuthatch (*Sitta carolinensis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	257.58	0.00	0.37
Full Model	258.04	0.46	0.29
No Noise Terms	258.71	1.13	0.21
No Mean Noise Term	259.58	2.00	0.13

Table A4.128: Model selection information for the productivity model for the Western Bluebird (*Sialia mexicana*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	499.78	0.00	0.58
Full Model	500.59	0.81	0.39
No Noise Terms	506.22	6.43	0.02
No Noise Variability Term	507.64	7.85	0.01

Table A4.129: Model selection information for the productivity model for the Western Scrub-Jay (*Aphelocoma californica*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	1909.26	0.00	0.31
Full Model	1909.53	0.27	0.27
No Mean Noise Term	1909.86	0.60	0.23
No Noise Terms	1910.13	0.87	0.20

Table A4.130: Model selection information for the productivity model for the Western Tanager (*Piranga ludoviciana*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: weak; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
Full Model	2398.76	0.00	0.97
No Noise Variability Term	2407.17	8.41	0.01
No Mean Noise Term	2407.82	9.06	0.01
No Noise Terms	2414.32	15.57	0.00

Table A4.131: Model selection information for the productivity model for the White-eyed Vireo (*Vireo griseus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: strong.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	2165.74	0.00	0.26
Full Model	2165.81	0.07	0.25
No Noise Variability Term	2165.83	0.09	0.25
No Noise Terms	2165.96	0.22	0.23

Table A4.132: Model selection information for the productivity model for the Wilson's Warbler (*Cardellina pusilla*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	3185.32	0.00	0.50
Full Model	3186.78	1.46	0.24
No Noise Terms	3187.38	2.06	0.18
No Mean Noise Term	3188.82	3.51	0.09

Table A4.133: Model selection information for the productivity model for the Wood Thrush (*Hylocichla mustelina*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	815.31	0.00	0.29
No Noise Terms	815.49	0.19	0.26
Full Model	815.73	0.42	0.23
No Noise Variability Term	815.83	0.52	0.22

Table A4.134: Model selection information for the productivity model for the Wrentit (*Chamaea fasciata*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Mean Noise Term	279.48	0.00	0.42
No Noise Terms	280.79	1.30	0.22
Full Model	280.98	1.49	0.20
No Noise Variability Term	281.54	2.05	0.15

Table A4.135: Model selection information for the productivity model for the White-throated Sparrow (*Zonotrichia albicollis*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: weak.

name	QIC	delta QIC	Akaike weight
No Noise Terms	2300.70	0.00	0.32
No Noise Variability Term	2301.09	0.39	0.26
No Mean Noise Term	2301.33	0.63	0.23
Full Model	2301.66	0.96	0.19

Table A4.136: Model selection information for the productivity model for the Yellow-breasted Chat (*Icteria virens*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Variability Term	335.49	0.00	0.47
Full Model	336.51	1.02	0.28
No Noise Terms	337.76	2.28	0.15
No Mean Noise Term	338.80	3.31	0.09

Table A4.137: Model selection information for the productivity model for the Yellow-billed Cuckoo (*Coccyzus americanus*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: strong; support for including the standard deviation of noise was: none.

name	QIC	delta QIC	Akaike weight
No Noise Terms	3126.09	0.00	0.31
No Mean Noise Term	3126.61	0.52	0.24
Full Model	3126.75	0.65	0.22
No Noise Variability Term	3126.76	0.67	0.22

Table A4.138: Model selection information for the productivity model for the Yellow Warbler (*Setophaga petechia*). The model was a quasi-Poisson GAMM with log link function. Based on QIC, support for including the noise level as a predictor of productivity was: none; support for including the standard deviation of noise was: none.