

Appendix 5

Tables for measurement error models

Description

The tables below present the full models for:

1. Productivity coefficients as a function of abundance coefficients (weighted mean noise level)
2. Productivity coefficients as a function of abundance coefficients (noise standard deviation)
3. Productivity coefficients as a function of song acoustic characteristics and life-history traits (weighted mean noise level)
4. Productivity coefficients as a function of song acoustic characteristics and life-history traits (noise standard deviation)

In all cases, all model selection criteria examined indicated that the best model was the intercept-only model (with no predictors). In each table, “CI (low)” and “CI (high)” indicate the lower and upper bounds of 95% credible intervals around the estimates. (Note: in most cases the shrinkage prior has resulted in slope parameter estimates that are approximately zero.)

Table 1: Model coefficients for measurement error model to predict productivity regression coefficients as a function of abundance regression coefficients, for effects of weighted mean noise level.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0099	0.0039	0.0022	0.0175
Abundance	0.0000	0.0000	0.0000	0.0000

Table 2: Model coefficients for measurement error model to predict productivity regression coefficients as a function of abundance regression coefficients, for effects of noise standard deviation.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0089	0.021	-0.0324	0.0498
Abundance	0.0000	0.000	0.0000	0.0000

Table 3: Model coefficients for measurement error model to predict productivity regression coefficients as a function of song acoustic characteristics and life-history traits, for effects of weighted mean noise level.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0109	0.0038	0.0034	0.0184
Freq5	0.0000	0.0000	0.0000	0.0000
Freq95	0.0000	0.0000	0.0000	0.0000
IQR.BW	0.0000	0.0000	0.0000	0.0000
Peak	0.0000	0.0000	0.0000	0.0000
Q3	0.0000	0.0000	0.0000	0.0000
HabitatGrassland	0.0000	0.0000	0.0000	0.0000
HabitatOpenWoodland	0.0000	0.0000	0.0000	0.0000
HabitatScrub	0.0000	0.0000	0.0000	0.0000
HabitatTown	0.0000	0.0000	0.0000	0.0000
Insectsyes	0.0000	0.0000	0.0000	0.0000
NestingGround	0.0000	0.0000	0.0000	0.0000
NestingShrub	0.0000	0.0000	0.0000	0.0000
NestingTree	0.0000	0.0000	0.0000	0.0000
MigrationNonMMigrator	0.0000	0.0000	0.0000	0.0000
MigrationPartialMigrator	0.0000	0.0000	0.0000	0.0000

Table 4: Model coefficients for measurement error model to predict productivity regression coefficients as a function of song acoustic characteristics and life-history traits, for effects of noise standard deviation.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0073	0.0213	-0.0344	0.0488
Freq5	0.0000	0.0000	0.0000	0.0000
Freq95	0.0000	0.0000	0.0000	0.0000
IQR.BW	0.0000	0.0000	0.0000	0.0000
Peak	0.0000	0.0000	0.0000	0.0000
Q3	0.0000	0.0000	0.0000	0.0000
HabitatGrassland	0.0000	0.0000	0.0000	0.0000
HabitatOpenWoodland	0.0000	0.0000	0.0000	0.0000
HabitatScrub	0.0000	0.0000	0.0000	0.0000
HabitatTown	0.0000	0.0000	0.0000	0.0000
Insectsyes	0.0000	0.0000	0.0000	0.0000
NestingGround	0.0000	0.0000	0.0000	0.0000
NestingShrub	0.0000	0.0000	0.0000	0.0000
NestingTree	0.0000	0.0000	0.0000	0.0000
MigrationNonMMigrator	0.0000	0.0000	0.0000	0.0000
MigrationPartialMigrator	0.0000	0.0000	0.0000	0.0000

Table 5: Model coefficients for measurement error model to predict abundance regression coefficients as a function of song acoustic characteristics and life-history traits, for effects of weighted mean noise level.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0073	0.0213	-0.0344	0.0488
Freq5	0.0000	0.0000	0.0000	0.0000
Freq95	0.0000	0.0000	0.0000	0.0000
IQR.BW	0.0000	0.0000	0.0000	0.0000
Peak	0.0000	0.0000	0.0000	0.0000
Q3	0.0000	0.0000	0.0000	0.0000
HabitatGrassland	0.0000	0.0000	0.0000	0.0000
HabitatOpenWoodland	0.0000	0.0000	0.0000	0.0000
HabitatScrub	0.0000	0.0000	0.0000	0.0000
HabitatTown	0.0000	0.0000	0.0000	0.0000
Insectsyes	0.0000	0.0000	0.0000	0.0000
NestingGround	0.0000	0.0000	0.0000	0.0000
NestingShrub	0.0000	0.0000	0.0000	0.0000
NestingTree	0.0000	0.0000	0.0000	0.0000
MigrationNonMMigrator	0.0000	0.0000	0.0000	0.0000
MigrationPartialMigrator	0.0000	0.0000	0.0000	0.0000

Table 6: Model coefficients for measurement error model to predict abundance regression coefficients as a function of song acoustic characteristics and life-history traits, for effects of noise standard deviation.

Term	Estimate	Standard Error	CI (low)	CI (high)
Intercept	0.0866	0.0251	0.0377	0.1364
Freq5	0.0000	0.0000	0.0000	0.0000
Freq95	0.0000	0.0000	0.0000	0.0000
IQR.BW	0.0000	0.0000	0.0000	0.0000
Peak	0.0000	0.0000	0.0000	0.0000
Q3	0.0000	0.0000	0.0000	0.0000
HabitatGrassland	0.0000	0.0000	0.0000	0.0000
HabitatOpenWoodland	0.0000	0.0000	0.0000	0.0000
HabitatScrub	0.0000	0.0000	0.0000	0.0000
HabitatTown	0.0000	0.0000	0.0000	0.0000
Insectsyes	0.0000	0.0000	0.0000	0.0000
NestingGround	0.0000	0.0000	0.0000	0.0000
NestingShrub	0.0000	0.0000	0.0000	0.0000
NestingTree	0.0000	0.0000	0.0000	0.0000
MigrationNonMMigrator	0.0000	0.0000	0.0000	0.0000
MigrationPartialMigrator	0.0000	0.0000	0.0000	0.0000