1 Supplementary Material

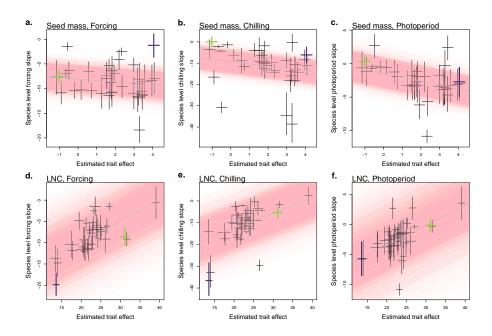


Figure 1: Trait relationships with cue slopes

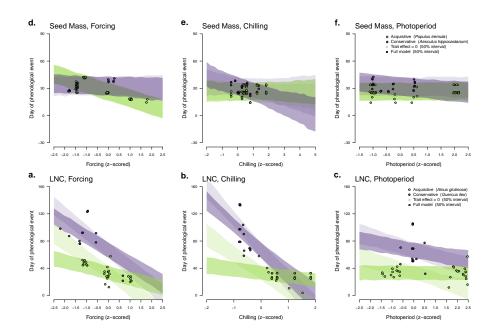


Figure 2: Estimated cue responses for acquisitive and conservative spp.

| Table | 1. | Unight | model | estimates |
|-------|----|--------|-------|-----------|
| Table | 1: | Height | moder | estimates |

| Variable | mean | sd | X2.5. | X50. | X97.5. | Rhat |
|-------------------------|--------|---------------------|--------|--------|--------|------|
| mu_grand | 12.62 | 1.83 | 8.95 | 12.63 | 16.21 | 1.00 |
| muPhenoSp | 32.13 | 2.69 | 26.94 | 32.12 | 37.43 | 1.00 |
| muForceSp | -10.81 | 2.81 | -16.34 | -10.77 | -5.33 | 1.00 |
| muChillSp | -4.42 | 4.05 | -12.71 | -4.35 | 3.34 | 1.00 |
| muPhotoSp | 1.44 | 2.23 | -2.98 | 1.44 | 5.77 | 1.00 |
| ${\bf betaTraitxForce}$ | 0.18 | 0.19 | -0.21 | 0.18 | 0.56 | 1.00 |
| betaTraitxChill | -0.51 | 0.28 | -1.04 | -0.52 | 0.06 | 1.00 |
| betaTraitxPhoto | -0.30 | 0.16 | -0.62 | -0.30 | 0.02 | 1.00 |
| $sigma_sp$ | 5.91 | 0.76 | 4.61 | 5.84 | 7.58 | 1.00 |
| $sigma_study$ | 7.51 | 1.20 | 5.49 | 7.38 | 10.24 | 1.00 |
| sigma_traity | 5.39 | 0.02 | 5.36 | 5.39 | 5.43 | 1.00 |
| sigmaPhenoSp | 15.17 | 2.07 | 11.23 | 15.11 | 19.42 | 1.00 |
| sigmaForceSp | 4.95 | 1.18 | 2.99 | 4.84 | 7.56 | 1.00 |
| sigmaChillSp | 8.63 | 2.19 | 5.25 | 8.33 | 13.72 | 1.00 |
| sigmaPhotoSp | 3.45 | 0.93 | 1.87 | 3.36 | 5.51 | 1.00 |
| sigmapheno_y | 14.22 | 0.25 | 13.74 | 14.22 | 14.72 | 1.00 |

| Variable | mean | sd | X2.5. | X50. | X97.5. | Rhat |
|---------------------------|--------|---------------------|--------|--------|--------|------|
| mu_grand | 16.54 | 1.57 | 13.51 | 16.53 | 19.54 | 1.01 |
| muPhenoSp | 31.39 | 2.51 | 26.51 | 31.35 | 36.45 | 1.00 |
| muForceSp | -10.95 | 2.67 | -16.44 | -10.89 | -5.87 | 1.01 |
| muChillSp | -16.49 | 4.62 | -26.03 | -16.33 | -7.86 | 1.01 |
| muPhotoSp | 0.97 | 2.56 | -4.29 | 1.02 | 5.74 | 1.02 |
| ${\bf beta Traitx Force}$ | 0.15 | 0.15 | -0.13 | 0.15 | 0.45 | 1.01 |
| beta Traitx Chill | 0.34 | 0.25 | -0.12 | 0.33 | 0.84 | 1.01 |
| beta Traitx Photo | -0.19 | 0.14 | -0.47 | -0.19 | 0.10 | 1.02 |
| sigma_sp | 7.78 | 0.97 | 6.12 | 7.70 | 9.89 | 1.00 |
| sigma_study | 3.27 | 0.96 | 1.82 | 3.12 | 5.49 | 1.00 |
| sigma_traity | 6.17 | 0.05 | 6.07 | 6.16 | 6.26 | 1.00 |
| sigmaPhenoSp | 13.96 | 2.10 | 10.03 | 13.91 | 18.20 | 1.00 |
| sigmaForceSp | 4.91 | 1.13 | 3.07 | 4.79 | 7.43 | 1.00 |
| sigmaChillSp | 10.48 | 2.29 | 6.60 | 10.28 | 15.35 | 1.00 |
| sigmaPhotoSp | 3.72 | 0.89 | 2.24 | 3.64 | 5.75 | 1.00 |
| sigmapheno_y | 14.21 | 0.26 | 13.71 | 14.21 | 14.72 | 1.00 |

| Table 3: Seed mass model estimates | | | | | | | | |
|------------------------------------|-------|---------------------|--------|-------|--------|------|--|--|
| Variable | mean | sd | X2.5. | X50. | X97.5. | Rhat | | |
| mu_grand | 1.84 | 0.48 | 0.90 | 1.84 | 2.77 | 1.00 | | |
| muPhenoSp | 31.43 | 2.70 | 26.33 | 31.40 | 36.84 | 1.00 | | |
| $\operatorname{muForceSp}$ | -8.04 | 1.57 | -11.19 | -8.03 | -4.98 | 1.00 | | |
| muChillSp | -9.36 | 2.79 | -15.05 | -9.28 | -4.02 | 1.00 | | |
| muPhotoSp | -1.44 | 1.27 | -3.90 | -1.47 | 1.06 | 1.00 | | |
| betaTraitxForce | -0.29 | 0.67 | -1.58 | -0.29 | 1.03 | 1.00 | | |
| betaTraitxChill | -1.08 | 1.09 | -3.20 | -1.09 | 1.07 | 1.00 | | |
| betaTraitxPhoto | -0.59 | 0.58 | -1.74 | -0.59 | 0.54 | 1.00 | | |
| $sigma_sp$ | 1.62 | 0.19 | 1.30 | 1.60 | 2.03 | 1.00 | | |
| $\operatorname{sigma_study}$ | 0.97 | 0.10 | 0.77 | 0.97 | 1.16 | 1.00 | | |
| $sigma_traity$ | 0.25 | 0.01 | 0.23 | 0.25 | 0.27 | 1.00 | | |
| sigmaPhenoSp | 14.93 | 2.29 | 10.62 | 14.89 | 19.61 | 1.00 | | |
| sigmaForceSp | 4.92 | 0.99 | 3.18 | 4.85 | 7.06 | 1.00 | | |
| sigmaChillSp | 10.65 | 2.53 | 6.44 | 10.37 | 16.20 | 1.00 | | |
| sigmaPhotoSp | 3.76 | 0.91 | 2.23 | 3.67 | 5.80 | 1.00 | | |
| $sigmapheno_y$ | 14.16 | 0.25 | 13.69 | 14.15 | 14.64 | 1.00 | | |

| Table 4: LNC model estimates | | | | | | | |
|------------------------------|--------|---------------------|--------|--------|--------|------|--|
| Variable | mean | sd | X2.5. | X50. | X97.5. | Rhat | |
| mu_grand | 22.65 | 1.41 | 19.90 | 22.65 | 25.44 | 1.00 | |
| muPhenoSp | 31.21 | 2.51 | 26.35 | 31.15 | 36.32 | 1.00 | |
| ${\it muForceSp}$ | -19.42 | 5.45 | -30.39 | -19.50 | -8.61 | 1.01 | |
| muChillSp | -26.48 | 7.09 | -40.56 | -26.52 | -12.15 | 1.00 | |
| muPhotoSp | -10.07 | 4.89 | -19.99 | -10.02 | -0.60 | 1.01 | |
| betaTraitxForce | 0.48 | 0.23 | 0.02 | 0.48 | 0.95 | 1.01 | |
| betaTraitxChill | 0.70 | 0.30 | 0.09 | 0.70 | 1.30 | 1.00 | |
| beta Traitx Photo | 0.33 | 0.20 | -0.06 | 0.33 | 0.73 | 1.01 | |
| $sigma_sp$ | 5.12 | 0.61 | 4.05 | 5.07 | 6.44 | 1.00 | |
| $sigma_study$ | 3.54 | 0.97 | 2.07 | 3.40 | 5.78 | 1.00 | |
| sigma_traity | 5.13 | 0.06 | 5.02 | 5.13 | 5.25 | 1.00 | |
| sigmaPhenoSp | 14.07 | 1.96 | 10.46 | 13.96 | 18.13 | 1.00 | |
| sigmaForceSp | 4.51 | 1.03 | 2.70 | 4.42 | 6.76 | 1.00 | |
| sigmaChillSp | 8.92 | 2.02 | 5.73 | 8.63 | 13.60 | 1.00 | |
| sigmaPhotoSp | 3.85 | 0.88 | 2.37 | 3.77 | 5.80 | 1.00 | |
| $sigmapheno_y$ | 14.22 | 0.26 | 13.73 | 14.21 | 14.73 | 1.00 | |