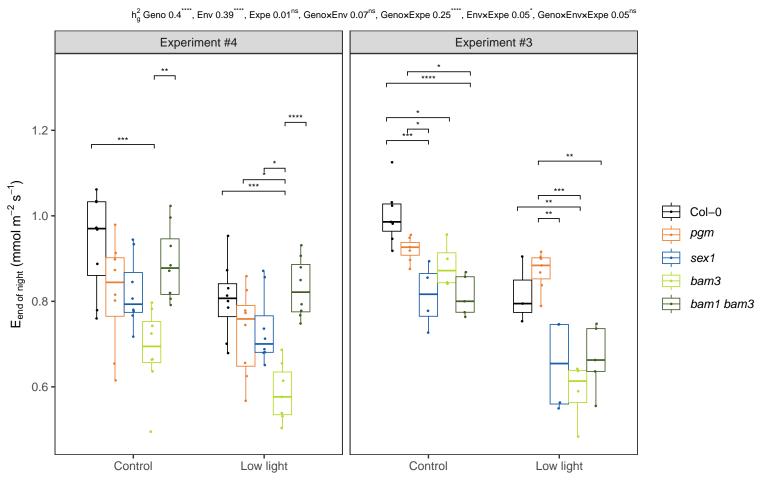
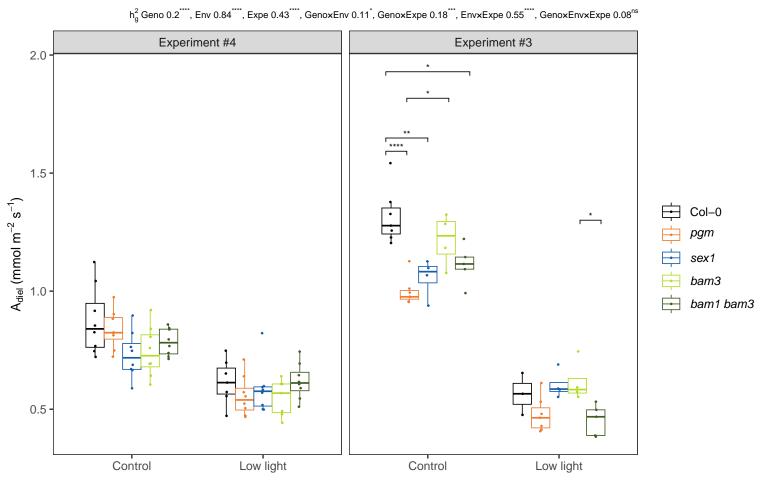
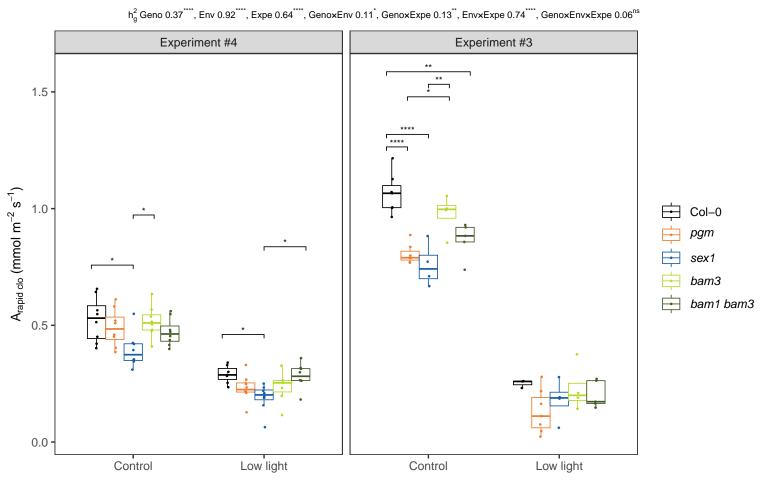
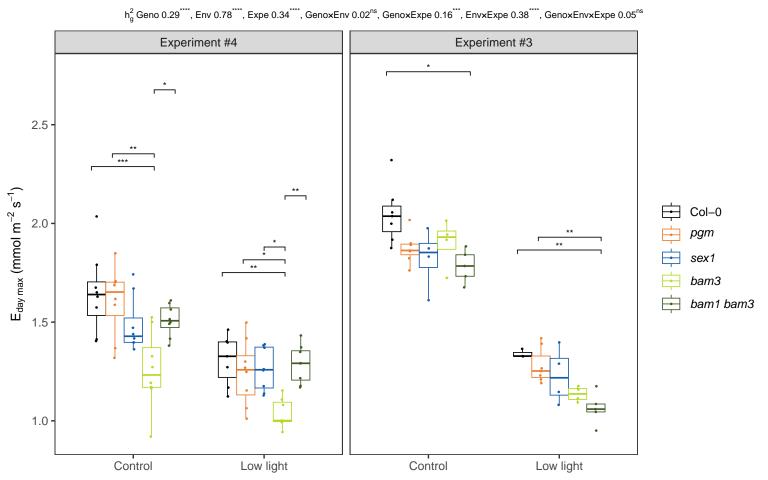


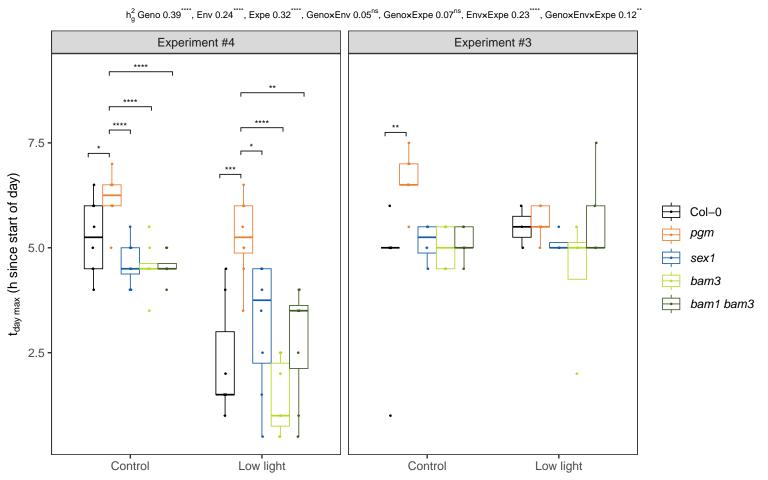
 h_{q}^{2} Geno $0.5^{\circ\circ\circ}$, Env $0.26^{\circ\circ\circ}$, Expe 0.03^{ns} , GenoxEnv 0.02^{ns} , GenoxExpe $0.21^{\circ\circ\circ}$, EnvxExpe 0.03^{ns} , GenoxEnvxExpe 0.04^{ns} Experiment #4 Experiment #3 1.2 -**** 1.0 - $\mathsf{E}_{\mathsf{night}}$ (mmol $\mathsf{m}^{-2} \; \mathsf{s}^{-1}$) Col-0 pgm 0.8 sex1 bam3 bam1 bam3 0.6 -0.4 -Control Low light Control Low light



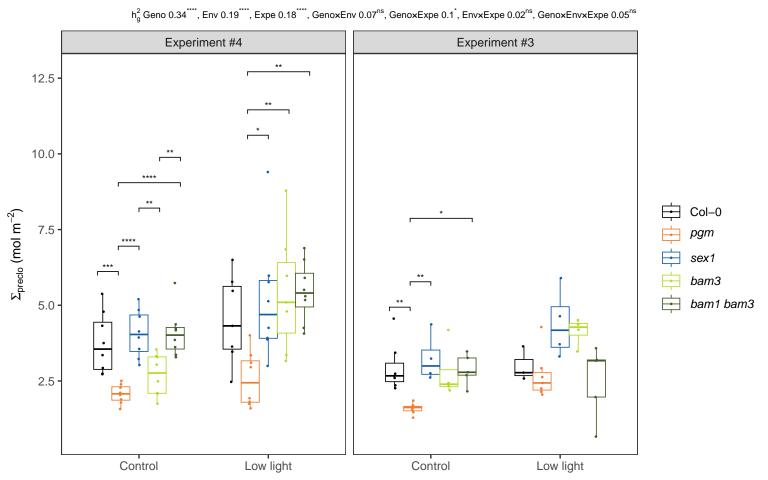








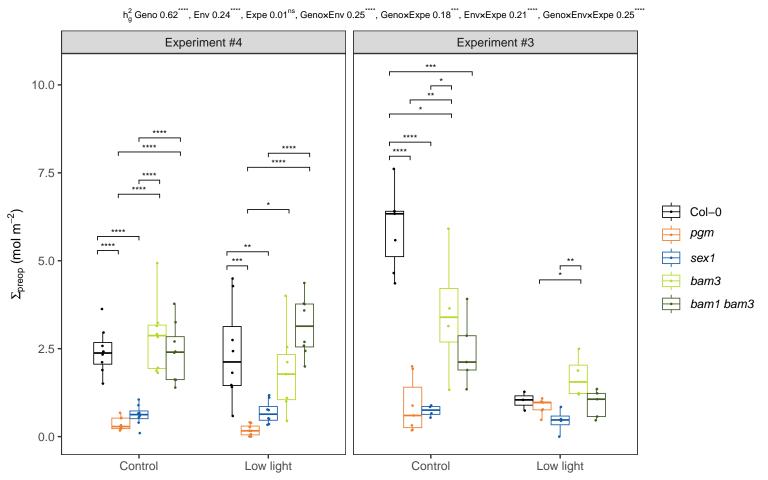
 h_{q}^{2} Geno 0.27^{****} , Env 0.39^{****} , Expe 0^{ns} , GenoxEnv 0.14^{***} , GenoxExpe 0.16^{***} , EnvxExpe 0.05° , GenoxEnvxExpe 0.02^{ns} Experiment #4 Experiment #3 15 -Col-0 $\Delta_{\rm day}~({\rm mol}~{\rm m}^{-2})$ 10 pgm sex1 bam3 bam1 bam3 5 -Control Low light Control Low light



 h_{σ}^{2} Geno 0.55 ****, Env 0.19 ****, Expe 0.04 *, GenoxEnv 0.05 ***, GenoxExpe 0.18 ***, EnvxExpe 0 ***, GenoxEnvxExpe 0.07 *** Experiment #4 Experiment #3 1.1 -0.9 - $\mathsf{E}_{\mathsf{night}\,\mathsf{min}}$ (mmol $\mathsf{m}^{-2}\;\mathsf{s}^{-1}$) Col-0 pgm 0.7 sex1 bam3 bam1 bam3 0.5 -0.3 -Control Low light Control Low light

 h_q^2 Geno 0.57 Finv 0.41 Fin, Expe 0.02 Square, GenoxEnv 0.22 GenoxExpe 0.13 FinvxExpe 0.36 GenoxEnvxExpe 0.07 GenoxEnvxExp Experiment #4 Experiment #3 1.0 -**** **** $\sigma_{night} \; (mmol \; m^{-2} \; s^{-1} \; d^{-1})$ 0.5 -Col-0 pgm sex1 bam3 bam1 bam3 0.0 -0.5 **-**Control Low light Control Low light

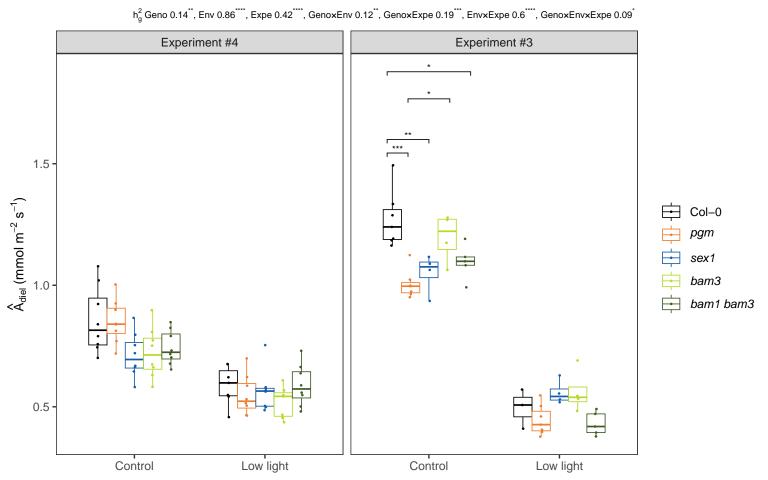
 h_{σ}^{2} Geno 0.17^{***} , Env 0.02^{ns} , Expe 0^{ns} , GenoxEnv 0.07^{ns} , GenoxExpe 0.03^{ns} , EnvxExpe 0.38^{****} , GenoxEnvxExpe 0.09^{*} Experiment #4 Experiment #3 2 -0 -Col-0 $\Delta_{\text{night}} \text{ (mol m}^{-2}\text{)}$ pgm sex1 bam3 bam1 bam3 **-4** -Control Low light Control Low light

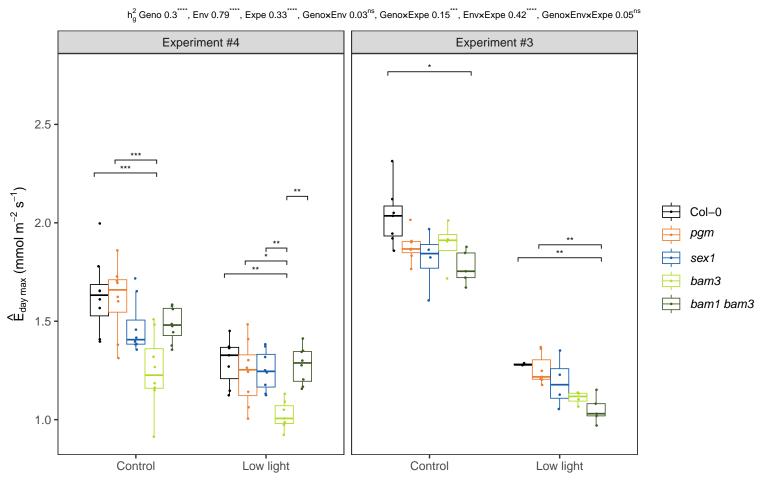


 h_{σ}^{2} Geno 0.35 , Env 0.82 , Expe 0.44 , GenoxEnv 0.03 , GenoxExpe 0.15 , EnvxExpe 0.46 , GenoxEnvxExpe 0.04 , Experiment #4 Experiment #3 2.4 - \dot{E}_{day} (mmol m $^{-2}$ s $^{-1}$) 2.0 -Col-0 pgm sex1 bam3 1.6 bam1 bam3 1.2 -0.8 -Control Low light Control Low light

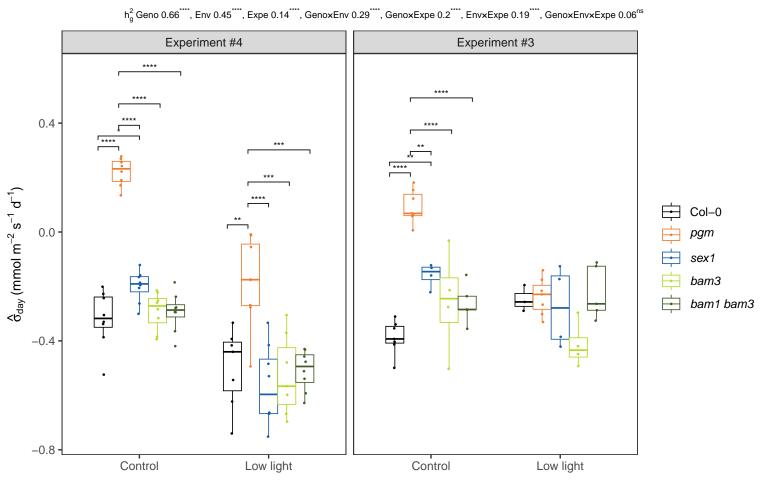
 $h_{q}^{2} \; \mathsf{Geno} \; 0.5^{""}, \; \mathsf{Env} \; 0.28^{""}, \; \mathsf{Expe} \; 0.04^{"}, \; \mathsf{Geno} \times \mathsf{Env} \; 0.02^{\mathsf{ns}}, \; \mathsf{Geno} \times \mathsf{Expe} \; 0.22^{""}, \; \mathsf{Env} \times \mathsf{Expe} \; 0.02^{\mathsf{ns}}, \; \mathsf{Geno} \times \mathsf{Env} \times \mathsf{Expe} \; 0.05^{\mathsf{ns}}$ Experiment #4 Experiment #3 1.2 -**** 1.0 - $\stackrel{A}{\mathrm{E}}_{\mathrm{night}}$ (mmol m $^{-2}$ s $^{-1}$) Col-0 pgm 0.8 sex1 bam3 bam1 bam3 0.6 -0.4 -Control Control Low light Low light

 h_{σ}^{2} Geno 0.38 ^{****}, Env 0.37 ^{****}, Expe 0.01 ^{ns}, GenoxEnv 0.05 ^{ns}, GenoxExpe 0.26 ^{****}, EnvxExpe 0.01 ^{ns}, GenoxEnvxExpe 0.05 ^{ns} Experiment #4 Experiment #3 1.4 -1.2 - $\dot{E}_{end\ of\ night}\ (mmol\ m^{-2}\ s^{-1})$ Col-0 1.0 pgm sex1 bam3 bam1 bam3 0.8 -0.6 -Control Low light Control Low light

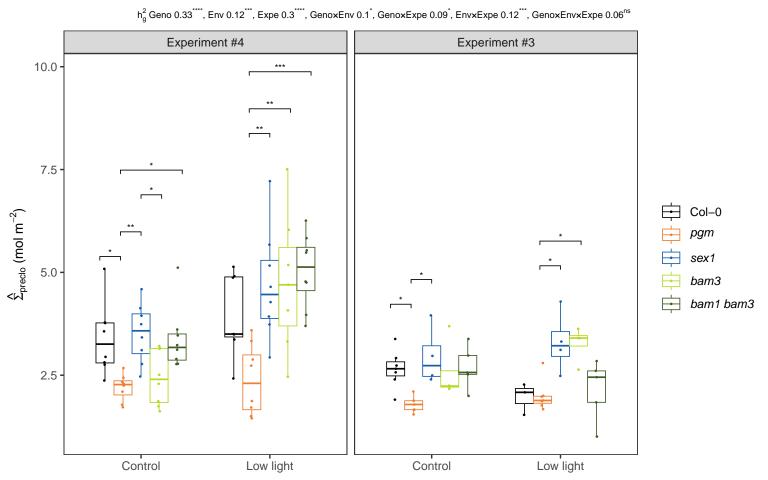




 h_{q}^{2} Geno 0.62^{***} , Env 0.6^{***} , Expe 0.41^{***} , GenoxEnv 0.2^{***} , GenoxExpe 0.15^{***} , EnvxExpe 0.23^{***} , GenoxEnvxExpe 0.06^{ns} Experiment #4 Experiment #3 7.5 t_{day max} (h since start of day) Col-0 pgm 5.0 sex1 bam3 bam1 bam3 2.5 -Control Low light Control Low light



 h_q^2 Geno 0.4^{****} , Env 0.5^{****} , Expe 0^{ns} , GenoxEnv 0.06^{ns} , GenoxExpe 0.23^{****} , EnvxExpe 0.11^{***} , GenoxEnvxExpe 0.03^{ns} Experiment #4 Experiment #3 15 10 -Col-0 $\hat{\Delta}_{\rm day} ~({\rm mol}~{\rm m}^{-2})$ pgm sex1 bam3 5 bam1 bam3 0 -Control Low light Control Low light



 h_0^2 Geno 0.53***, Env 0.19***, Expe 0.05*, GenoxEnv 0.03^{ns}, GenoxExpe 0.21***, EnvxExpe 0^{ns}, GenoxEnvxExpe 0.06^{ns} Experiment #4 Experiment #3 1.1 -0.9 $\hat{\mathsf{E}}_{\mathsf{night}\,\mathsf{min}}$ (mmol $\mathsf{m}^{-2}\;\mathsf{s}^{-1}$) Col-0 pgm 0.7 sex1 bam3 bam1 bam3 0.5 -

Control

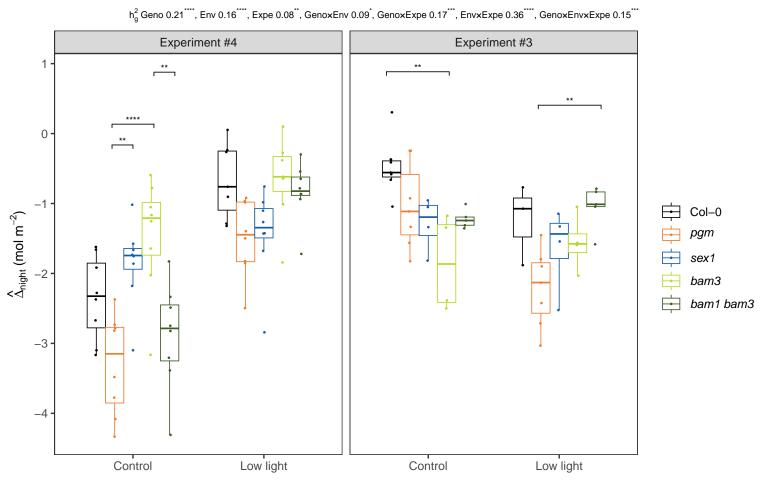
Low light

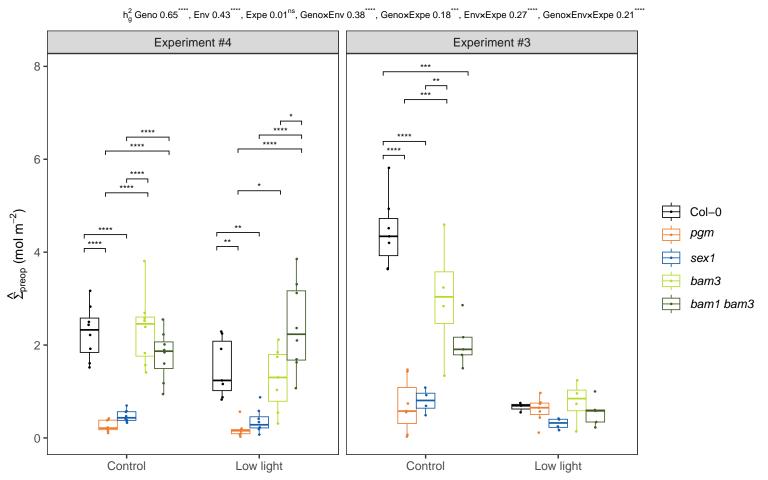
0.3

Control

Low light

 h_q^2 Geno 0.72 Finv 0.24 Fin, Expe 0^{ns} , GenoxEnv 0.29 GenoxExpe 0.16 Find Expe 0.07, GenoxExpe 0.08 GenoxExpe 0.08 Find Expe 0.08 Fi Experiment #4 Experiment #3 1.0 δ_{night} (mmol m⁻² s⁻¹ d⁻¹) 0.5 -Col-0 pgm sex1 bam3 bam1 bam3 0.0 Control Low light Control Low light

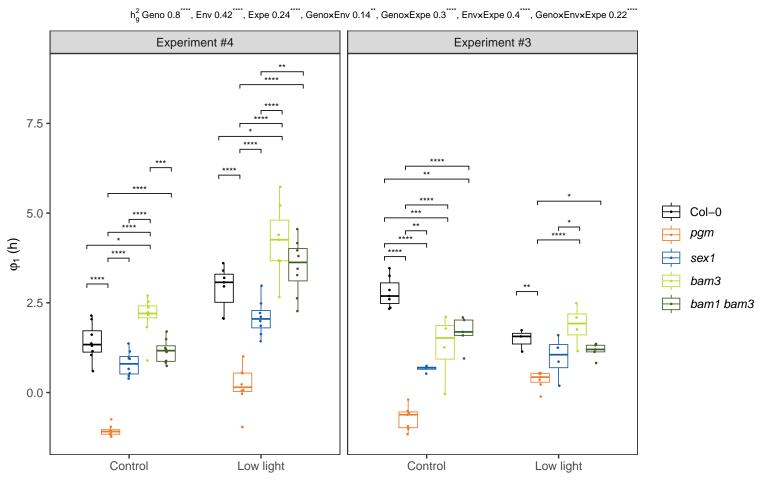




h_q² Geno 0.43^{***}, Env 0.78^{***}, Expe 0.32^{***}, GenoxEnv 0.04^{ns}, GenoxExpe 0.17^{***}, EnvxExpe 0.23^{***}, GenoxEnvxExpe 0.03^{ns} Experiment #4 Experiment #3 1.5 -E_{mean} (mmol m⁻² s⁻¹) Col-0 pgm sex1 bam3 bam1 bam3 0.5 -Control Low light Control Low light

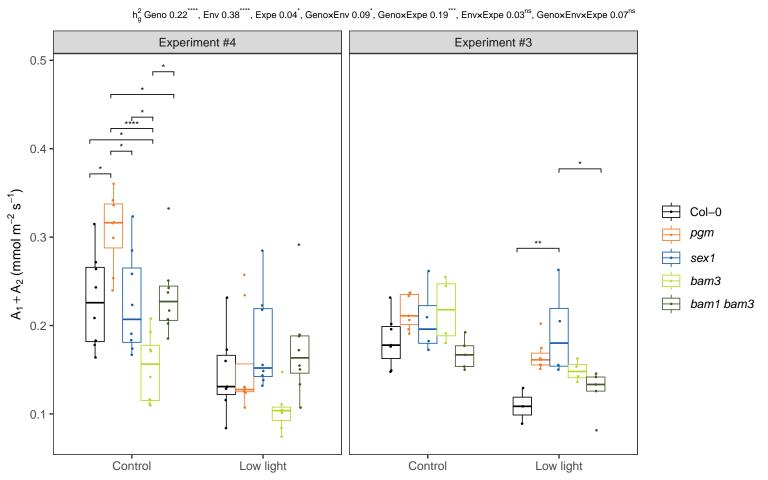
 h_q^2 Geno 0.38 Find 0.88 Find 0.88 GenoxEnv 0.06 SenoxEnv 0.06 SenoxEnv 0.06 SenoxEnv 0.08 Senox Experiment #4 Experiment #3 0.6 A_{SQW} (mmol m⁻² s⁻¹) Col-0 pgm 0.4 sex1 bam3 bam1 bam3 0.2 -0.0 -Control Low light Control Low light

 h_0^2 Geno 0.17^{***} , Env 0.39^{****} , Expe 0.07^{**} , GenoxEnv 0.09° , GenoxExpe 0.21^{****} , EnvxExpe 0.11^{***} , GenoxEnvxExpe 0.11° Experiment #4 Experiment #3 0.3 - $A_1 \text{ (mmol m}^{-2} \text{ s}^{-1}\text{)}$ Col-0 pgm sex1 bam3 bam1 bam3 0.1 -Control Low light Control Low light



 h_0^2 Geno 0.27^{****} , Env 0.24^{****} , Expe 0^{ns} , GenoxEnv 0.13^{**} , GenoxExpe 0.09° , EnvxExpe 0.04° , GenoxEnvxExpe 0.03^{ns} Experiment #4 Experiment #3 0.12 0.09 - $A_2 \text{ (mmol m}^{-2} \text{ s}^{-1}\text{)}$ Col-0 pgm sex1 0.06 bam3 bam1 bam3 0.03 -Control Low light Control Low light

 h_q^2 Geno $0.36^{\circ\circ\circ}$, Env $0.32^{\circ\circ\circ\circ}$, Expe $0.3^{\circ\circ\circ}$, GenoxEnv $0.2^{\circ\circ\circ}$, GenoxExpe $0.05^{\circ\circ}$, EnvxExpe $0.03^{\circ\circ}$, GenoxEnvxExpe $0.1^{\circ\circ}$ Experiment #4 Experiment #3 2.5 -Col-0 pgm ϕ_2 (h) 0.0 sex1 bam3 bam1 bam3 -2.5 **-**-5.0 **-**Control Low light Control Low light



 h_{q}^{2} Geno 0.48****, Env 0^{ns}, Expe 0.03**s, GenoxEnv 0.12**, GenoxExpe 0.1**, EnvxExpe 0.11***, GenoxEnvxExpe 0.18*** Experiment #4 Experiment #3 9 -**** Col-0 $\varphi_1 - \varphi_2(h)$ pgm sex1 bam3 bam1 bam3 3 -0 -

Control

Low light

Control

Low light

