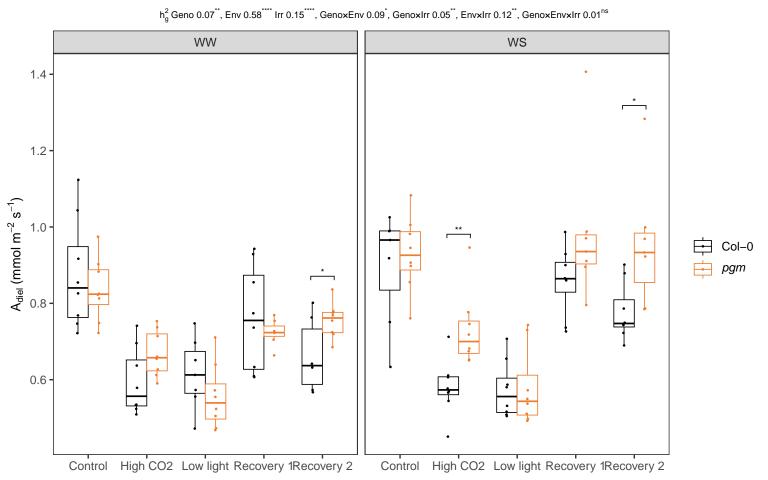
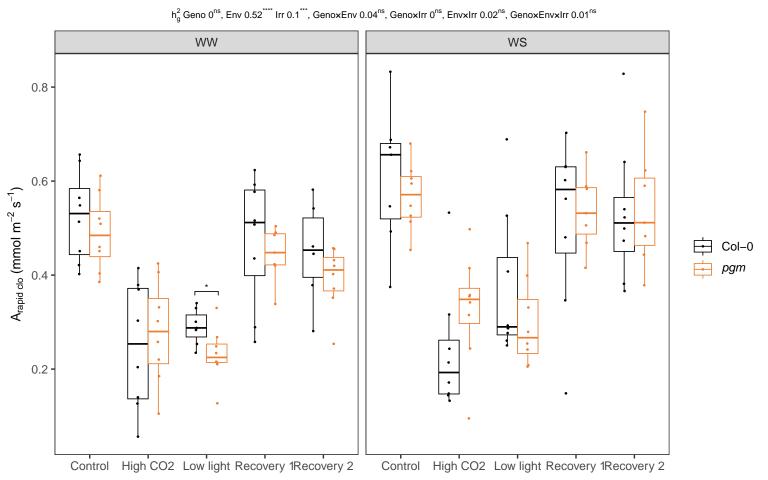
h_{q}^{2} Geno 0.1 Fiv 0.35 Fir 0^{ns} , Geno×Env 0.01 Seno×Irr 0.14 Fiv., Env×Irr 0.03 Seno×Env×Irr 0.01 Seno×Env×Irr 0.01 Fig. 6 Geno×Env×Irr 0.01 Fig. 6 Geno×Env×Ir WW WS 1.8 - $E_{\rm day}$ (mmol m⁻² s⁻¹) 1.5 -Col-0 pgm 1.2 0.9 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

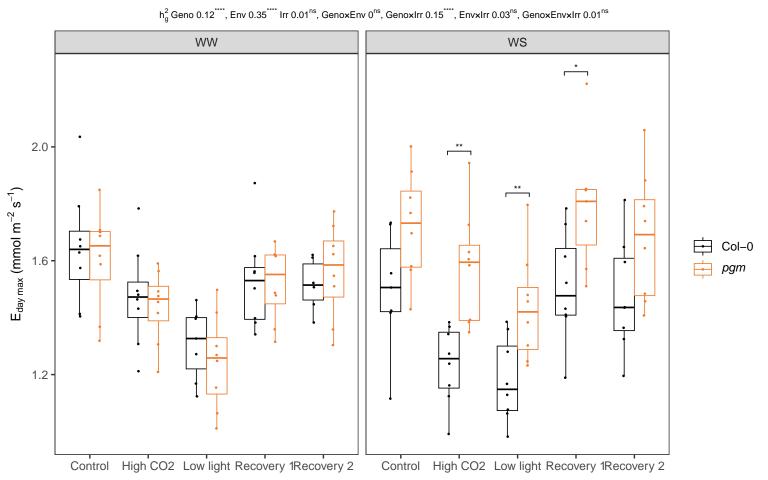
 $h_{g}^{2} \, \text{Geno} \, 0.04^{^{*}}, \, \text{Env} \, 0.06^{^{ns}} \, \text{Irr} \, 0.06^{^{**}}, \, \text{GenoxEnv} \, 0.02^{ns}, \, \text{GenoxIrr} \, 0.15^{^{****}}, \, \text{EnvxIrr} \, 0.05^{ns}, \, \text{GenoxEnvxIrr} \, 0.02^{ns}$ WW WS 1.0 - E_{night} (mmol m $^{-2}$ s $^{-1}$) Col-0 0.8 pgm 0.6 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2

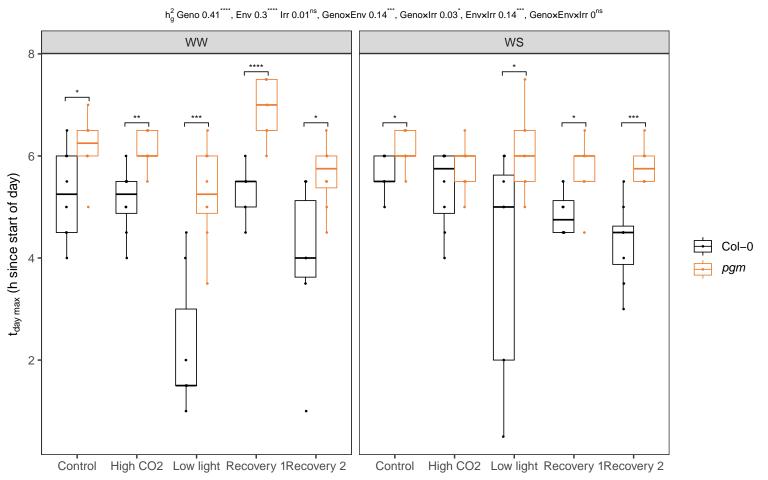
 $h_{g}^{2} \text{ Geno } 0.01^{ns}, \text{ Env } 0.07^{^{\star}} \text{ Irr } 0.04^{^{\star}}, \text{ GenoxEnv } 0.03^{ns}, \text{ GenoxIrr } 0.12^{^{\star\star\star\star}}, \text{ EnvxIrr } 0.05^{ns}, \text{ GenoxEnvxIrr } 0.02^{ns}$ WW WS 1.1 - $\rm E_{\rm end\ of\ night}\ (mmol\ m^{-2}\ s^{-1})$ 0.9 -Col-0 pgm 0.7 0.5 High CO₂ Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2 Control



 h_{α}^{2} Geno $0.07^{\circ\circ}$, Env $0.23^{\circ\circ\circ}$ Irr $0.07^{\circ\circ\circ}$, GenoxEnv $0.17^{\circ\circ\circ\circ}$, GenoxIrr 0.02^{ns} , EnvxIrr 0.03^{ns} , GenoxEnvxIrr 0.03^{ns} WW WS 0.8 -0.6 - $A_{rapid\,op}\;(mmol\;m^{-2}\;s^{-1})$ Col-0 0.4 pgm 0.2 -0.0 High CO2 Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2 Control







 $h_{g}^{2} \ \mathsf{Geno} \ \mathsf{0.49}^{\mathtt{m}}, \mathsf{Env} \ \mathsf{0.43}^{\mathtt{m}} \ \mathsf{Irr} \ \mathsf{0}^{\mathsf{ns}}, \mathsf{GenoxEnv} \ \mathsf{0.13}^{\mathtt{m}}, \mathsf{GenoxIrr} \ \mathsf{0.06}^{\mathtt{n}}, \mathsf{EnvxIrr} \ \mathsf{0.13}^{\mathtt{m}}, \mathsf{GenoxEnvxIrr} \ \mathsf{0.02}^{\mathsf{ns}}$ WW WS 1.0 - $\sigma_{day} \; (mmol \; m^{-2} \; s^{-1} \; d^{-1})$ 0.5 -Col-0 pgm 0.0 -0.5 Control High CO2 Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2

 h_{α}^{2} Geno 0.34^{****} , Env 0.47^{****} Irr 0^{ns} , GenoxEnv 0.07^{*} , GenoxIrr 0.02^{ns} , EnvxIrr 0.05^{ns} , GenoxEnvxIrr 0.04^{ns} WWWS 20 - $\Delta_{\rm day}~({\rm mol}~{\rm m}^{-2})$ Col-0 pgm Control High CO2 Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

 h_{q}^{2} Geno 0.17 ..., Env 0.06 s Irr 0.03 s, Geno×Env 0.1 , Geno×Irr 0.11 , Env×Irr 0.12 , Geno×Env×Irr 0.02 s WW WS 6 - $\Sigma_{\rm preclo}~({
m mol}~{
m m}^{-2})$ Col-0 pgm 2 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

 $h_{g}^{2}\,\text{Geno }0.1^{""},\,\text{Env }0.06^{\text{ns}}\,\text{Irr }0.06^{"},\,\text{GenoxEnv }0.03^{\text{ns}},\,\text{GenoxIrr }0.18^{""},\,\text{EnvxIrr }0.04^{\text{ns}},\,\text{GenoxEnvxIrr }0.03^{\text{ns}}$ WW WS 1.0 - $E_{\rm night\;min}\;(\rm mmol\;m^{-2}\;s^{-1})$ 0.8 -Col-0 pgm 0.6 Control High CO₂ Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2

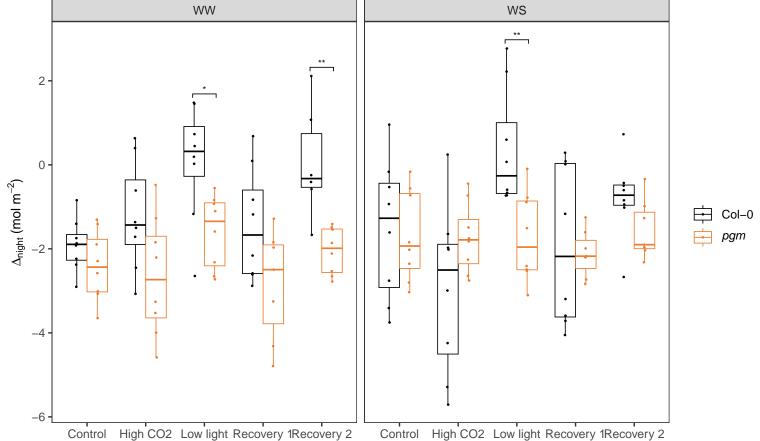
 h_{σ}^{2} Geno 0.71 ^{****}, Env 0.19 ^{****} Irr 0^{ns} , GenoxEnv 0.09 ^{**}, GenoxIrr 0^{ns} , EnvxIrr 0.01 ^{ns}, GenoxEnvxIrr 0.03 ^{ns} WW WS 12.5 -10.0 t_{night min} (h since start of night) **** 7.5 -Col-0 pgm 5.0 2.5 0.0 -High CO2 Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2 Control

 $h_{n}^{2} \, \text{Geno } 0.65^{****}, \text{Env } 0.21^{****} \, \text{Irr } 0.01^{ns}, \text{GenoxEnv } 0.02^{ns}, \text{GenoxIrr } 0.02^{ns}, \text{EnvxIrr } 0.01^{ns}, \text{GenoxEnvxIrr } 0.01^$ WW WS 0.4 - $\sigma_{night} \; (mmol \; m^{-2} \; s^{-1} \; d^{-1})$ Col-0 0.0 pgm -0.4 **-**

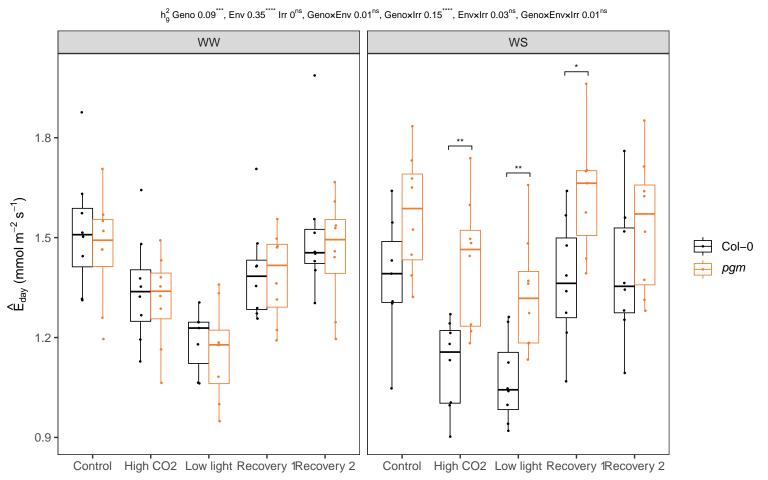
Control High CO2 Low light Recovery 1Recovery 2

Control High CO2 Low light Recovery 1Recovery 2

h_g Geno 0.13^{***}, Env 0.2^{***} Irr 0^{ns}, Geno×Env 0.08^{*}, Geno×Irr 0.05^{*}, Env×Irr 0.02^{ns}, Geno×Env×Irr 0.05^{ns}



 h_{σ}^{2} Geno 0.53 ****, Env 0.14 *** Irr 0^{ns} , GenoxEnv 0.04 ***, GenoxIrr 0^{ns} , EnvxIrr 0.02 ***, GenoxEnvxIrr 0.01 *** WW WS 6 - $\Sigma_{\rm preop}~({
m mol}~{
m m}^{-2})$ Col-0 pgm 2 -0 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2



 h_{q}^{2} Geno 0.04*, Env 0.06^{ns} Irr 0.06**, GenoxEnv 0.02^{ns}, GenoxIrr 0.14****, EnvxIrr 0.06^{ns}, GenoxEnvxIrr 0.02^{ns} WW WS 1.0 - $\hat{\mathsf{E}}_{\mathsf{night}}$ (mmol m $^{-2}$ s $^{-1}$) Col-0 pgm 0.8 0.6 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

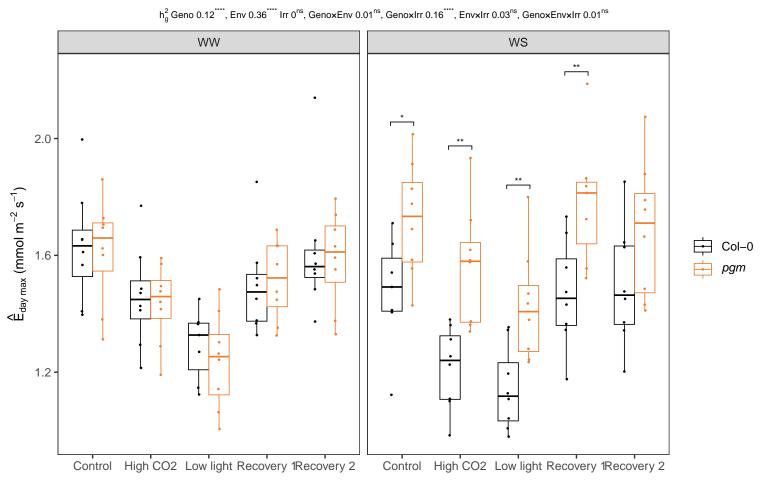
Control

High CO₂ Low light Recovery 1Recovery 2

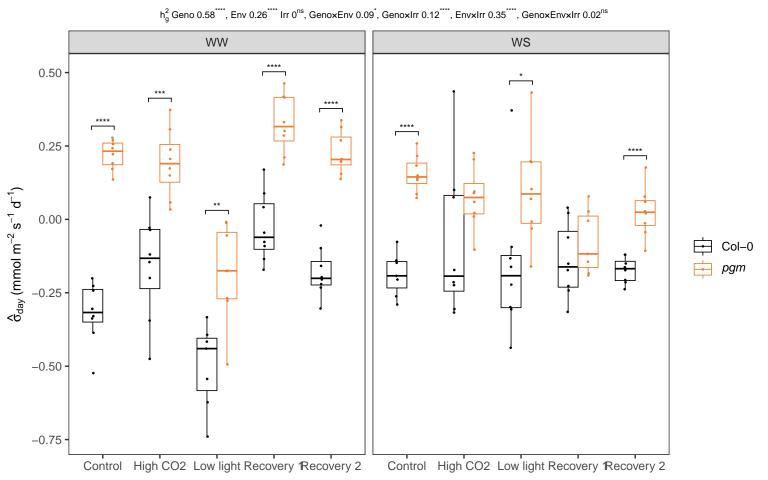
Control

High CO₂ Low light Recovery 1Recovery 2

 h_0^2 Geno 0.14 , Env 0.61 Irr 0.1 , GenoxEnv 0.07 , GenoxIrr 0.07 , EnvxIrr 0.12 , GenoxEnvxIrr 0.01 , GenoxEnvxIrr 0.01 , GenoxEnvxIrr 0.01 WW WS 1.2 - A_{diel} (mmol m⁻² s⁻¹) Col-0 0.9 pgm 0.6 Control High CO₂ Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2



 h_g^2 Geno 0.49 , Env 0.47 Env 0.47 Env 0.47 GenoxEnv 0.16 GenoxIrr 0.04, EnvxIrr 0.1 GenoxEnvxIrr 0.03 GenoxEnvxIrr 0.03 WW WS 8 -6 $t_{day max}^{\Lambda}$ (h since start of day) Col-0 pgm 2 Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2



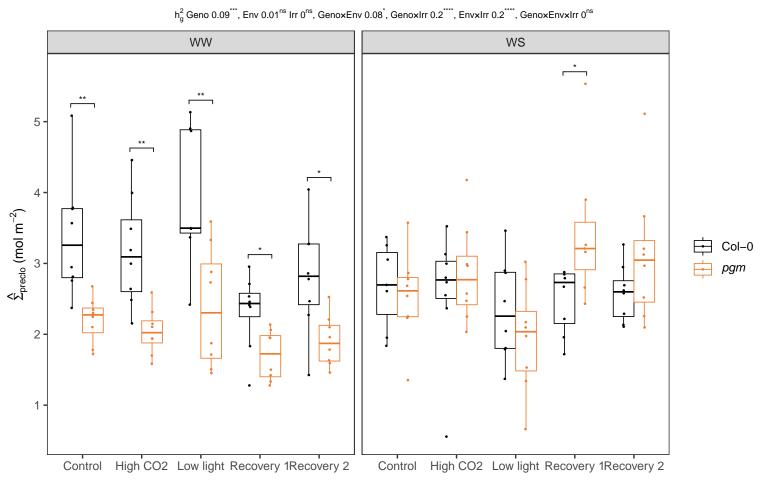
 $h_q^2 \ \text{Geno } 0.46^{****}, \text{Env } 0.44^{****} \ \text{Irr } 0.02^{\text{ns}}, \text{GenoxEnv } 0.03^{\text{ns}}, \text{GenoxIrr } 0.05^{\text{s}}, \text{EnvxIrr } 0.02^{\text{ns}}, \text{GenoxEnvxIrr } 0^{\text{ns}}$ WWWS 10 - $\mathring{\Delta}_{\text{day}} \text{ (mol m}^{-2}\text{)}$ Col-0 pgm 0 -

Control

High CO2 Low light Recovery 1Recovery 2

Control

High CO2 Low light Recovery 1Recovery 2



 h_0^2 Geno 0.05^{**} , Env 0.06^{ns} Irr 0.06^{**} , GenoxEnv 0.04^{ns} , GenoxIrr 0.16^{****} , EnvxIrr 0.05^{ns} , GenoxEnvxIrr 0.03^{ns} WW WS 1.0 - $\hat{E}_{night \, min} \, (mmol \, m^{-2} \, s^{-1})$ Col-0 0.8 pgm 0.6 Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

 h_0^2 Geno 0.78^{****} , Env 0.1^{**} Irr 0.01^{ns} , Geno×Env 0.06^{ns} , Geno×Irr 0.02^{ns} , Env×Irr 0.05^{ns} , Geno×Env×Irr 0.01^{ns} WW WS 10.0 t_{night min} (h since start of night) 7.5 -Col-0 pgm 5.0 -2.5 Control High CO2 Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2

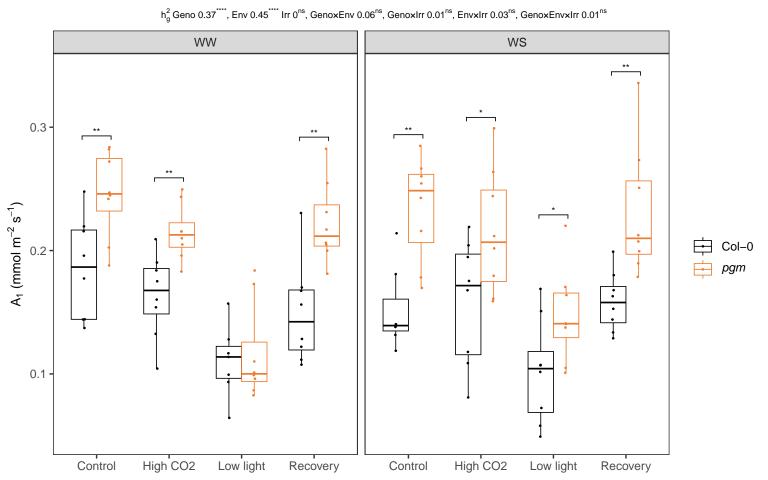
 h_{q}^{2} Geno 0.72^{****} , Env 0.04^{ns} Irr 0^{ns} , GenoxEnv 0.08^{*} , GenoxIrr 0.09^{***} , EnvxIrr 0.08^{*} , GenoxEnvxIrr 0.04^{ns} WW WS 0.6 -0.4 - δ_{night} (mmol m⁻² s⁻¹ d⁻¹) 0.2 -Col-0 pgm 0.0 --0.2-0.4 **-**Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

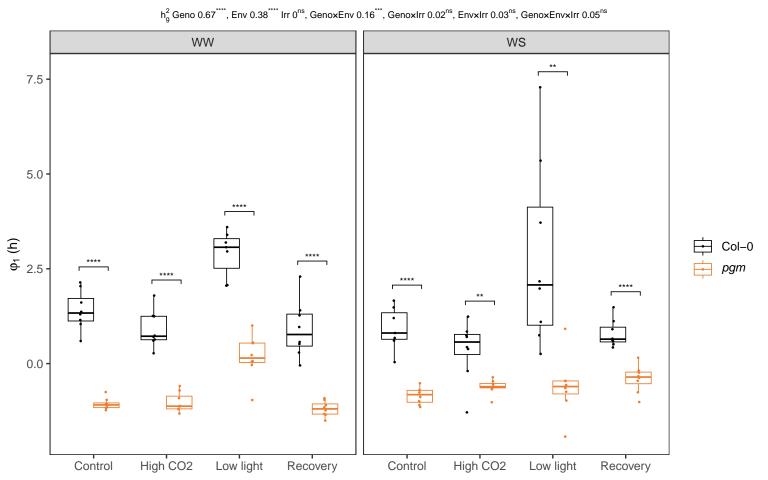
 h_{q}^{2} Geno 0.27^{****} , Env 0.28^{****} Irr 0^{ns} , Geno×Env 0.02^{ns} , Geno×Irr 0.03^{*} , Env×Irr 0.02^{ns} , Geno×Env×Irr 0.01^{ns} WW WS 1 -0 $\Delta_{\text{night}} \, (\text{mol m}^{-2})$ Col-0 -2 pgm -3 -4 High CO2 Low light Recovery 1Recovery 2 Control High CO2 Low light Recovery 1Recovery 2 Control

 $h_q^2 \, \text{Geno } 0.55^{****}, \, \text{Env } 0.03^{\text{ns}} \, \text{Irr } 0^{\text{ns}}, \, \text{GenoxEnv } 0.03^{\text{ns}}, \, \text{GenoxIrr } 0.01^{\text{ns}}, \, \text{EnvxIrr } 0.06^{\text{ns}}, \, \text{GenoxEnvxIrr } 0.03^{\text{ns}}, \, \text$ WW WS 6 - $\hat{\Sigma}_{\text{preop}}$ (mol m $^{-2}$) Col-0 pgm **** 2 · 0 -Control High CO₂ Low light Recovery 1Recovery 2 Control High CO₂ Low light Recovery 1Recovery 2

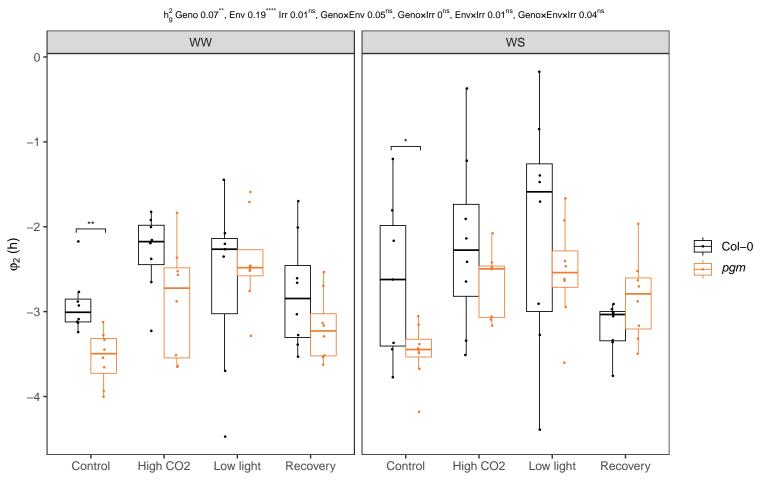
 h_{σ}^{2} Geno 0.05°, Env 0.23° Irr 0^{ns}, GenoxEnv 0.01^{ns}, GenoxIrr 0.14° EnvxIrr 0.08°, GenoxEnvxIrr 0.01^{ns} WW WS 1.6 1.4 -E_{mean} (mmol m⁻² s⁻¹) Col-0 pgm 0.8 -0.6 Control High CO2 Low light Recovery Control High CO2 Low light Recovery

 h_{0}^{2} Geno 0.07^{**} , Env 0.48^{****} Irr 0.09^{**} , GenoxEnv 0.06^{ns} , GenoxIrr 0.01^{ns} , EnvxIrr 0.03^{ns} , GenoxEnvxIrr 0.01^{ns} WW WS 0.3 - A_{SQW} (mmol m⁻² s⁻¹) 0.2 -Col-0 pgm 0.1 -0.0 -High CO2 Control High CO2 Low light Recovery Control Low light Recovery





 h_{α}^{2} Geno 0.17^{****} , Env 0.15^{***} Irr 0.03^{ns} , GenoxEnv 0.04^{ns} , GenoxIrr 0.07^{**} , EnvxIrr 0^{ns} , GenoxEnvxIrr 0.01^{ns} WW WS 0.12 0.09 - $A_2 \text{ (mmol m}^{-2} \text{ s}^{-1}\text{)}$ Col-0 0.06 pgm 0.03 -0.00 Control High CO2 Low light Recovery Control High CO2 Low light Recovery



 h_{q}^{2} Geno 0.37^{****} , Env 0.43^{****} Irr 0^{ns} , Geno×Env 0.06^{ns} , Geno×Irr 0.04° , Env×Irr 0.02^{ns} , Geno×Env×Irr 0^{ns} WW WS 0.4 -A₁ + A₂ (mmol m⁻² s⁻¹) = 5.0Col-0 pgm 0.1 -Control High CO2 Low light Recovery Control High CO2 Low light Recovery

