

$F_v/F_m$	T=3						T=6						T=10						T=Rh1h						T=Rh1d										
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)
<i>Didymodon fallax</i> (E-S)																																			
<i>Didymodon fallax</i> (B)																																			
<i>Grimmia lisae</i> (Z)																																			
<i>Hypnum cupressiforme</i> (SM)																																			
<i>Pleurochaete squarrosa</i> (Z)																																			
<i>Targionia hypophylla</i> (B)																																			
<i>Tortella nitida</i> (SM)																																			
<i>Tortella nitida</i> (E)																																			

**Table S1.** Results of the statistical analysis comparisons of  $F_v/F_m$  between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
Grey	n.s.	> 0,05
Orange	*	< 0,05
Yellow	**	< 0,01
Blue	***	< 0,001
Green	****	< 0,0001

ETR	T=3						T=6						T=10						T=Rh1h						T=Rh1d												
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)		
<i>Didymodon fallax</i> (E-S)																																					
<i>Didymodon fallax</i> (B)																																					
<i>Grimmia lisae</i> (Z)																																					
<i>Hypnum cupressiforme</i> (SM)																																					
<i>Pleurochaete squarrosa</i> (Z)																																					
<i>Targionia hypophylla</i> (B)																																					
<i>Tortella nitida</i> (SM)																																					
<i>Tortella nitida</i> (E)																																					

**Table S2.** Results of the statistical analysis comparisons of ETR between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
	n.s.	> 0,05
	*	< 0,05
	**	< 0,01
	***	< 0,001
	****	< 0,0001

NPQ/4	T=3						T=6						T=10						T=Rh1h						T=Rh1d												
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)		
<i>Didymodon fallax</i> (E-S)																																					
<i>Didymodon fallax</i> (B)																																					
<i>Grimmia lisae</i> (Z)																																					
<i>Hypnum cupressiforme</i> (SM)																																					
<i>Pleurochaete squarrosa</i> (Z)																																					
<i>Targionia hypophylla</i> (B)																																					
<i>Tortella nitida</i> (SM)																																					
<i>Tortella nitida</i> (E)																																					

**Table S3.** Results of the statistical analysis comparisons of  $F_v/F_m$  between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
	n.s.	> 0,05
	*	< 0,05
	**	< 0,01
	***	< 0,001
	****	< 0,0001

$\alpha$	T=3						T=6						T=10						T=Rh1h						T=Rh1d										
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)
<i>Didymodon fallax</i> (E-S)																																			
<i>Didymodon fallax</i> (B)																																			
<i>Grimmia lisae</i> (Z)																																			
<i>Hypnum cupressiforme</i> (SM)																																			
<i>Pleurochaete squarrosa</i> (Z)																																			
<i>Targionia hypophylla</i> (B)																																			
<i>Tortella nitida</i> (SM)																																			
<i>Tortella nitida</i> (E)																																			

**Table S4.** Results of the statistical analysis comparisons of  $\alpha$  between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
	n.s.	> 0,05
	*	< 0,05
	**	< 0,01
	***	< 0,001
	****	< 0,0001

$\beta$	T=3						T=6						T=10						T=Rh1h						T=Rh1d											
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	
<i>Didymodon fallax</i> (E-S)																																				
<i>Didymodon fallax</i> (B)																																				
<i>Grimmia lisae</i> (Z)																																				
<i>Hypnum cupressiforme</i> (SM)																																				
<i>Pleurochaete squarrosa</i> (Z)																																				
<i>Targionia hypophylla</i> (B)																																				
<i>Tortella nitida</i> (SM)																																				
<i>Tortella nitida</i> (E)																																				

**Table S5.** Results of the statistical analysis comparisons of  $\beta$  between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
	n.s.	> 0,05
	*	< 0,05
	**	< 0,01
	***	< 0,001
	****	< 0,0001

rETR <sub>max</sub>	T=3						T=6						T=10						T=Rh1h						T=Rh1d										
Species	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)
<i>Didymodon fallax</i> (E-S)																																			
<i>Didymodon fallax</i> (B)																																			
<i>Grimmia lisae</i> (Z)																																			
<i>Hypnum cupressiforme</i> (SM)																																			
<i>Pleurochaete squarrosa</i> (Z)																																			
<i>Targionia hypophylla</i> (B)																																			
<i>Tortella nitida</i> (SM)																																			
<i>Tortella nitida</i> (E)																																			

Table S6. Results of the statistical analysis comparisons of rETR<sub>max</sub> between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
Grey	n.s.	> 0,05
Orange	*	< 0,05
Yellow	**	< 0,01
Blue	***	< 0,001
Green	****	< 0,0001

E <sub>k</sub>	T=3						T=6						T=10						T=Rh1h						T=Rh1d								
	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)	<i>Didymodon fallax</i> (B)	<i>Grimmia lisae</i> (Z)	<i>Hypnum cupressiforme</i> (SM)	<i>Pleurochaete squarrosa</i> (Z)	<i>Targionia hypophylla</i> (B)	<i>Tortella nitida</i> (SM)	<i>Tortella nitida</i> (E)					
<i>Didymodon fallax</i> (E-S)																																	
<i>Didymodon fallax</i> (B)																																	
<i>Grimmia lisae</i> (Z)																																	
<i>Hypnum cupressiforme</i> (SM)																																	
<i>Pleurochaete squarrosa</i> (Z)																																	
<i>Targionia hypophylla</i> (B)																																	
<i>Tortella nitida</i> (SM)																																	
<i>Tortella nitida</i> (E)																																	

Table S7. Results of the statistical analysis comparisons of E<sub>k</sub> between species within each time (one-way ANOVA with Tukey's multiple comparisons test).

Colour	Symbol	Statistic
Grey	n.s.	> 0,05
Orange	*	< 0,05
Yellow	**	< 0,01
Blue	***	< 0,001
Green	****	< 0,0001