Supplementary Materials

Evidence for resource transfer via common endophyte networks

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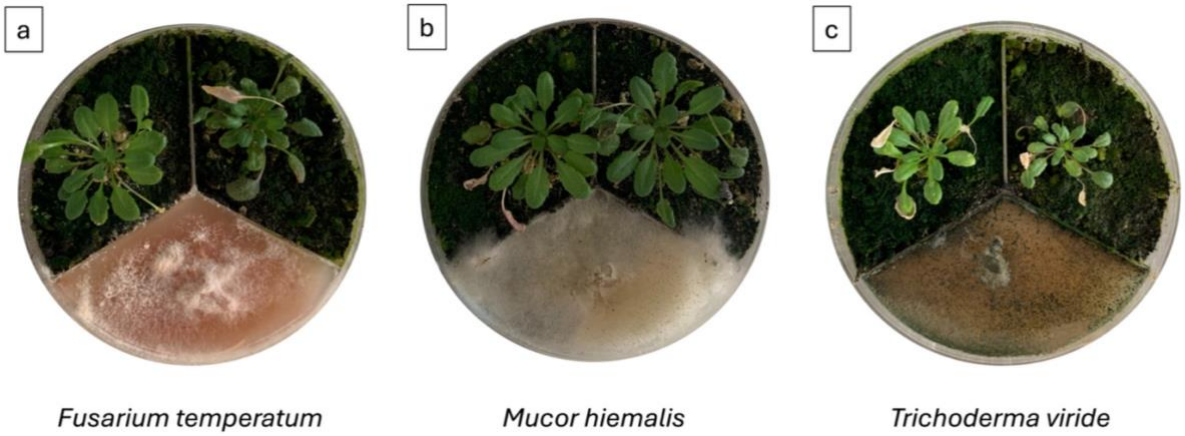
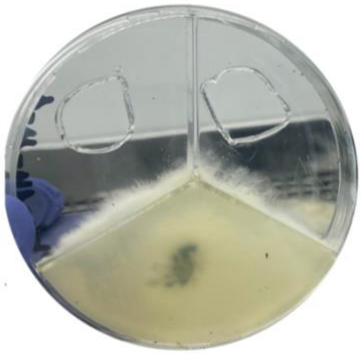
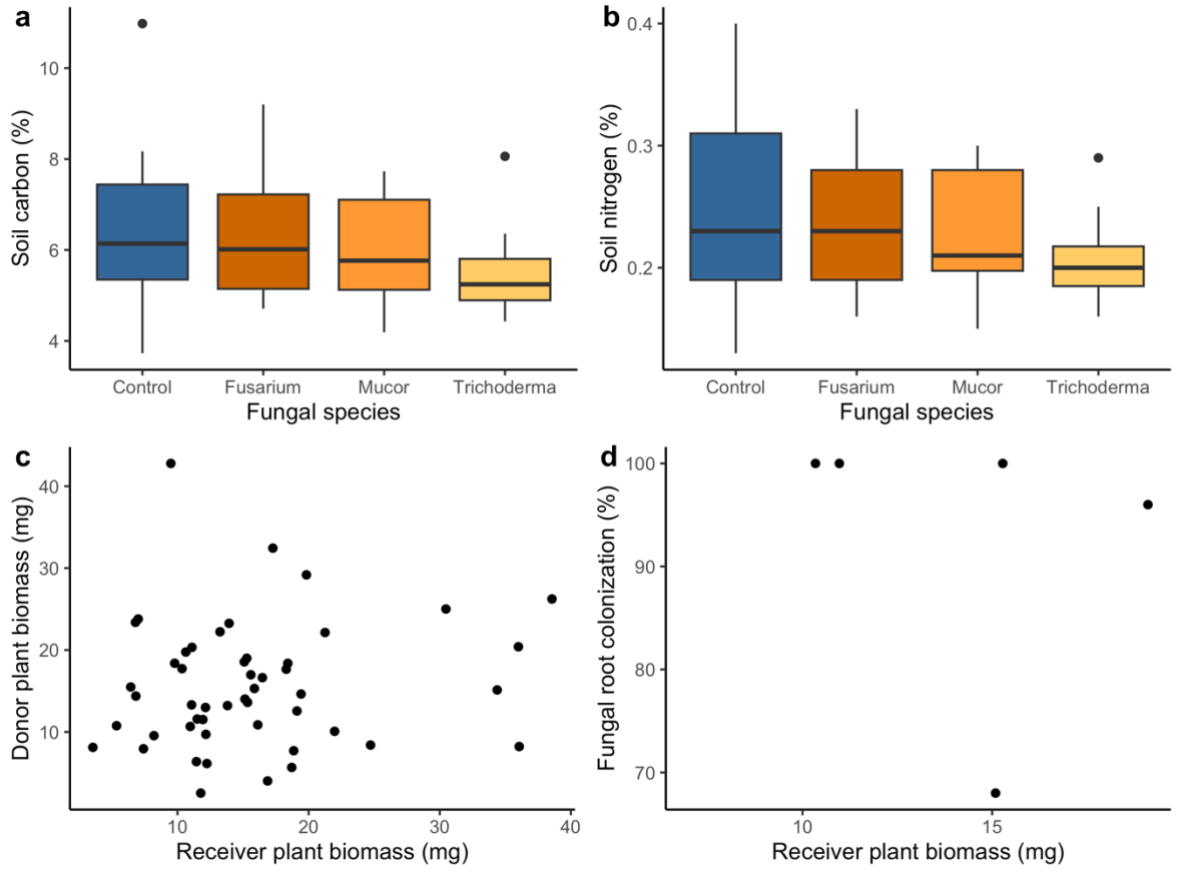


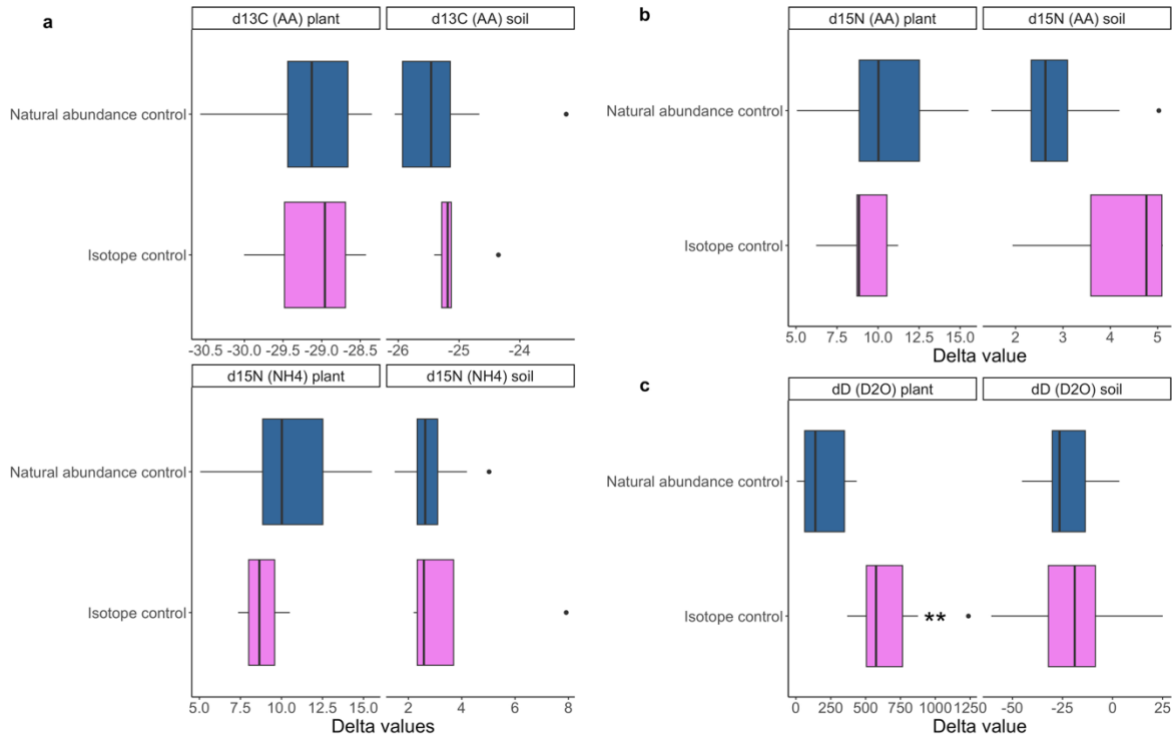
Supplement Figure 1: Pictures of the inoculated plates. Images were taken right before sampling. Inoculation with *F. temperatum* (**a**), *Mucor hiemalis* (**b**) and *T. viride* (**c**).



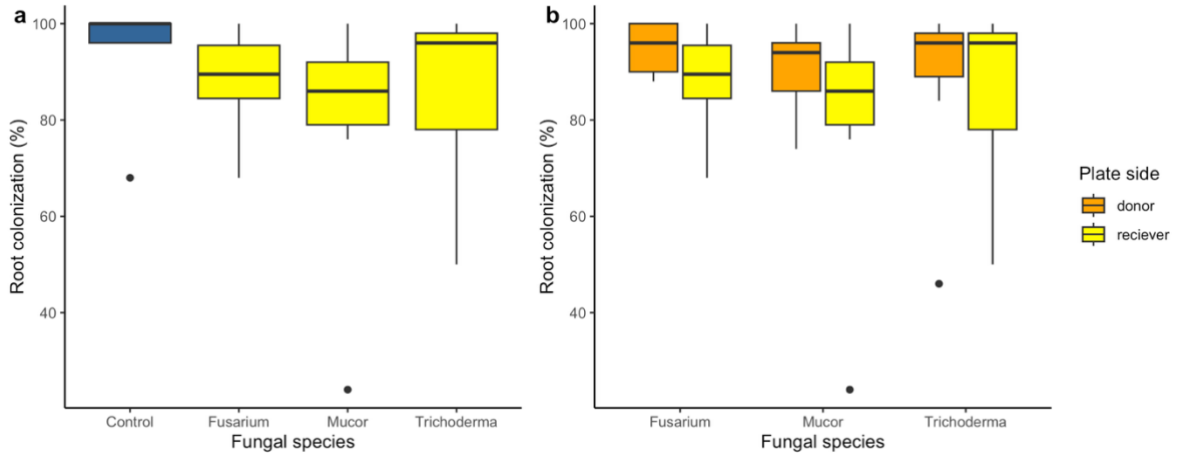
Supplement Figure 2: Pictures of the overgrowth of the internal barriers by *Mucor hiemalis*.



Supplement Figure 3: Validation of the experimental system. Fertility of the receiver soils as total carbon and nitrogen (**a**, **b**). Correlation of the biomasses of the donor and receiver plant ($p = 0.43$, $R = 0.11$)(**c**). Correlation of fungal root colonization and plant biomass of only control treatments ($p = 0.7$, $R = -0.25$)(**d**).



Supplement Figure 4: Comparison of isotope and natural abundance controls. Comparison of isotope and natural abundance controls of the control plates where ^{13}C was added as amino acids and ^{15}N as ammonium (**a**). Comparison of isotope and natural abundance controls of the control plates where ^{15}N was added as amino acids (**b**). Comparison of isotope and natural abundance controls of the control plates where deuterium was added as D_2O showing significantly more δD in the isotope control compared to the natural abundance control ($p = 0.0007$) (**c**). (** means $p \leq 0.01$).



Supplement Figure 5: Fungal root colonization. Comparison of fungal root colonization of receiver plants to the natural abundance control by endophyte species (**a**). Comparison of fungal root colonization of receiver and donor plants by endophyte species (**b**).

Supplement Table 1: Statistical values (Correlations, t-tests). Table of correlations and t-tests showing comparison references and corresponding p-values and R-values (blue means $p \leq 0.05$; violet means $p \leq 0.01$).

Statistical method	Comparison reference 1	Comparison reference 2	p	R
Pearson correlation	Donor plant	Receiver plant	0.4326	0.1134861
Pearson correlation	Fungal root colonization of reciever plants (only control)	Plant biomass	0.6878	-0.2477715
Pearson correlation	Fungal root colonization of reciever plants (only fungal inoculations)	Plant biomass	0.01106	0.5091308
One-sided Welch's t-test	Plant biomass (*Fusarium temperatum*)	Plant biomass (Natural abundance control)	0.01387	
One-sided Welch's t-test	Plant biomass (*Trichoderma viride*)	Plant biomass (Natural abundance control)	0.07448	
One-sided Student's t-test	Total nitrogen content (*Mucor hiemalis*) in plants (plates with receiver plants)	Total nitrogen content (Natural abundance control) in plants (plates with receiver plants)	0.001003	
Two-sided Student's t-test	$\partial D(D_2O)$ (Natural abundance control) in plants (plates with receiver plants)	$\partial D(D_2O)$ (isotope control) in plants (plates with receiver plants)	0.0006808	
One-sided Student's t-test	$\partial^{13}C(AA)$ (*Mucor hiemalis*) in soils (plates without receiver plants)	$\partial^{13}C(AA)$ (Natural abundance control) in soils (plates with receiver plants)	0.05391	
One-sided Welch's t-test	$\partial D(D_2O)$ (*Trichoderma viride*) in plants (plates without receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in plants (plates with receiver plants)	0.04365	
One-sided Student's t-test	$\partial^{13}C(AA)$ (*Trichoderma viride*) in plants (plates with receiver plants)	$\partial^{13}C(AA)$ (Natural abundance control) in plants (plates with receiver plants)	0.04962	
One-sided Student's t-test	$\partial^{15}N(AA)$ (*Fusarium temperatum*) in plants (plates with receiver plants)	$\partial^{15}N(AA)$ (Natural abundance control) in plants (plates with receiver plants)	0.01683	
One-sided Student's t-test	$\partial^{15}N(AA)$ (*Fusarium temperatum*) in soils (plates with receiver plants)	$\partial^{15}N(AA)$ (Natural abundance control) in soils (plates with receiver plants)	0.001306	
One-sided Student's t-test	$\partial^{15}N(AA)$ (*Mucor hiemalis*) in soils (plates with receiver plants)	$\partial^{15}N(AA)$ (Natural abundance control) in soils (plates with receiver plants)	0.006907	
One-sided Student's t-test	$\partial D(D_2O)$ (*Fusarium temperatum*) in soils (plates with receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in soils (plates with receiver plants)	0.00001287	
One-sided Welch's t-test	$\partial D(D_2O)$ (*Mucor hiemalis*) in soils (plates with receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in soils (plates with receiver plants)	0.04282	
One-sided Welch's t-test	$\partial D(D_2O)$ (*Fusarium temperatum*) in plants (plates with receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in plants (plates with receiver plants)	0.002062	
One-sided Welch's t-test	$\partial D(D_2O)$ (*Mucor hiemalis*) in plants (plates with receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in plants (plates with receiver plants)	0.001896	
One-sided Welch's t-test	$\partial D(D_2O)$ (*Trichoderma viride*) in plants (plates with receiver plants)	$\partial D(D_2O)$ (Natural abundance control) in plants (plates with receiver plants)	0.01153	

Supplement Table 2: Statistical values (ANOVAs). Table of ANOVAs and Kruskal-Wallis rank sum tests showing the data that has been tested for fungal species effects compared to the natural abundance control and corresponding p-values (blue means $p \leq 0.05$; violet means $p \leq 0.01$).

Statistical method	Data	Comparison	p
ANOVA	∂D in soils (plates without receiver plants)	Fungal species	0.0266
Kruskal-Wallis rank sum test	∂D in soils (plates without receiver plants)	Fungal species	0.0485
ANOVA	Total plant nitrogen	Fungal species	0.001038
ANOVA	$\partial^{13}C(AA)$ in plants (plates with receiver plants)	Fungal species	0.05292
ANOVA	$\partial^{15}N(AA)$ in soils (plates with receiver plants)	Fungal species	0.01
ANOVA	$\partial D(D_2O)$ in plants (plates with receiver plants)	Fungal species	0.02039
ANOVA	$\partial D(D_2O)$ in soils (plates with receiver plants)	Fungal species	0.0004977
Kruskal-Wallis rank sum test	$\partial D(D_2O)$ in soils (plates with receiver plants)	Fungal species	0.0001153