

Contrasting rhizospheric and heterotrophic components of soil respiration during growing and non-growing seasons in a temperate deciduous forest

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Table S1. Models of soil respiration from control plots (R_s , $\text{mol m}^{-2} \text{s}^{-1}$) and trenched plots (R_H , $\text{mol m}^{-2} \text{s}^{-1}$) against soil temperature at 5 cm depth (T_5 , °C) or 10 cm (T_{10} , °C) and soil volumetric water content at 0-5 cm (SWC_5 , $\text{m}^3 \text{m}^{-3}$) or 0-10 cm (SWC_{10} , $\text{m}^3 \text{m}^{-3}$) for the three plots during the non-growing (Nov. 2010 to Apr. 2011) and growing (May to October 2011) season.

Season	Variable	T	SWC	a	b	c	d	$adj. R^2$	$RMSE$
Model: $\ln(R) = a + b \times T$									
Non-growing season	R_s	T_5		-0.672	0.654			0.64	0.339
Non-growing season	R_s	T_{10}		-0.893	0.522			0.506	0.397
Non-growing season	R_H	T_5		-0.862	0.505			0.823	0.37
Non-growing season	R_H	T_{10}		-1.095	0.56			0.805	0.388
Growing season	R_s	T_5		-0.17	0.112			0.768	0.284
Growing season	R_s	T_{10}		-0.132	0.115			0.719	0.312
Growing season	R_H	T_5		-0.508	0.109			0.848	0.226
Growing season	R_H	T_{10}		0.473	0.113			0.821	0.245
Model: $\ln(R) = a + b \times T + c \times SWC + d \times T \times SWC$									
Growing season	R_s	T_5	SWC_5	-0.668	0.118	1.967		0.836	0.239
Growing season	R_s	T_{10}	SWC_{10}	-0.795	0.126	1.922		0.817	0.252
Growing season	R_s	T_5	SWC_{10}	-0.686	0.119	1.573		0.835	0.240
Growing season	R_s	T_{10}	SWC_5	-0.758	0.125	2.36		0.815	0.253
Growing season	R_H	T_5	SWC_5	-0.733	0.111	0.843		0.865	0.212
Growing season	R_H	T_{10}	SWC_{10}	-0.811	0.116	0.961		0.857	0.219
Growing season	R_H	T_5	SWC_{10}	-0.767	0.111	0.766		0.871	0.208
Growing season	R_H	T_{10}	SWC_5	-0.77	0.116	1.072		0.850	0.224

Table S2. Annual and non-growing season (NGS) total soil respiration (R_s), heterotrophic respiration (R_H), and rhizospheric respiration (R_R) for each plot during the two climatic years.

Plot Number	Annual R_s g m^{-2}	Annual R_H g m^{-2}	Annual R_R g m^{-2}	NGS R_s g m^{-2}	NGS R_H g m^{-2}	NGS R_R g m^{-2}
2	943.49	576.70	366.80	97.25	81.46	15.79
3	786.20	554.72	231.48	91.20	79.26	11.94
4	876.26	510.20	366.06	92.69	77.50	15.19