



Supplement of

Comparing an exponential respiration model to alternative models for soil respiration components in a Canadian wildfire chronosequence (FireResp v1.0)

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Figure S1. Median values of parameter estimates for different models using the Field parameter estimation approach. The horizontal axis on each sparkline plot is arranged by the year since the burn sites in the chronosequence (2012, 1990, 1968, or Control). In each row the vertical axis scale is the same. Edge hitting parameters are denoted with the blue coloring.

Field Linear approach; 5 cm depth												
	Q _{10,M}	k _S	k _M	<i>k</i> _A	μ	3	g _R					
Null							₩					
Microbe	$\downarrow \land \downarrow$		••••	• • • •	+++++++++++++							
Quality			••••	$\downarrow \downarrow \downarrow \downarrow$	↓ ↑ ↓							
Microbe-mult												
Quality-mult							+					
Field Linear approach; 10 cm depth												
	Q _{10,M}	k _S	k _M	<i>k</i> _A	μ	з	9 _R					
Null												
Microbe					\							
Quality					•••							
Microbe-mult												
Quality-mult	•••			• • • •								
		Field Lin	ear appro	ach; All d	lepths							
	Q _{10,M}	k _S	k _M	<i>k</i> _A	μ	3	<i>g</i> _R					
Null		••••					•					
Microbe	$\downarrow \uparrow \downarrow$			• * ••	• • • •		+1++					
Quality			••••	• • • •	+++							
Microbe-mult							+1++					
Quality-mult	••••			$+ \downarrow +$								

Figure S2. Median values of parameter estimates for different models using the Field Linear parameter estimation approach. The horizontal axis on each sparkline plot is arranged by the year since the burn sites in the chronosequence (2012, 1990, 1968, or Control). In each row the vertical axis scale is the same. Edge hitting parameters are denoted with the blue coloring.



Figure S3. Median values of parameter estimates for different models using the Incubation Field parameter estimation approach. The horizontal axis on each sparkline plot is arranged by the year since the burn sites in the chronosequence (2012, 1990, 1968, or Control). In each row the vertical axis scale is the same. Edge hitting parameters are denoted with the blue coloring.

Incubation Field Linear approach; 5 cm depth											
	Q _{10,M}	k _S	k _M	k _A	μ	ε	9 _R	f			
Null	••••	••••						$\left + \right\rangle$			
Microbe	•••			+++	++						
Quality	+^++			,	•••			\mathbb{H}			
Microbe-mult	++++		$\mathbb{N} \mathbb{I}$	••••							
Quality-mult	• ^ • •		••••	••••							
Incubation Field Linear approach; 10 cm depth											
	Q _{10,M}	k _S	k _M	<i>k</i> _A	μ	3	<i>g</i> _R	f			
Null	••••	••••						••••			
Microbe				••••	••••			NI			
Quality	$\searrow \searrow$					\mathbb{N}					
Microbe-mult	++++										
Quality-mult	•++		\mathbb{N}								
		Incubatio	on Field Li	near appr	oach; All	depths					
	Q _{10,M}	k _S	k _M	<i>k</i> _A	μ	3	<i>g</i> _R	f			
Null	••••	••••						+			
Microbe	•••		••••	•••	+-						
Quality	••••			• +++	••••						
Microbe-mult	• • • •			••••							
Quality-mult	++++										

Figure S4. Median values of parameter estimates for different models using the Incubation Field Linear parameter estimation approach. The horizontal axis on each sparkline plot is arranged by the year since the burn sites in the chronosequence (2012, 1990, 1968, or Control). In each row the vertical axis scale is the same. Edge hitting parameters are denoted with the blue coloring.