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Supplement of

Short- and long-term temperature responses of soil denitrifier net N₂O efflux rates, inter-profile N₂O dynamics, and microbial genetic potentials

Kate M. Buckeridge et al.

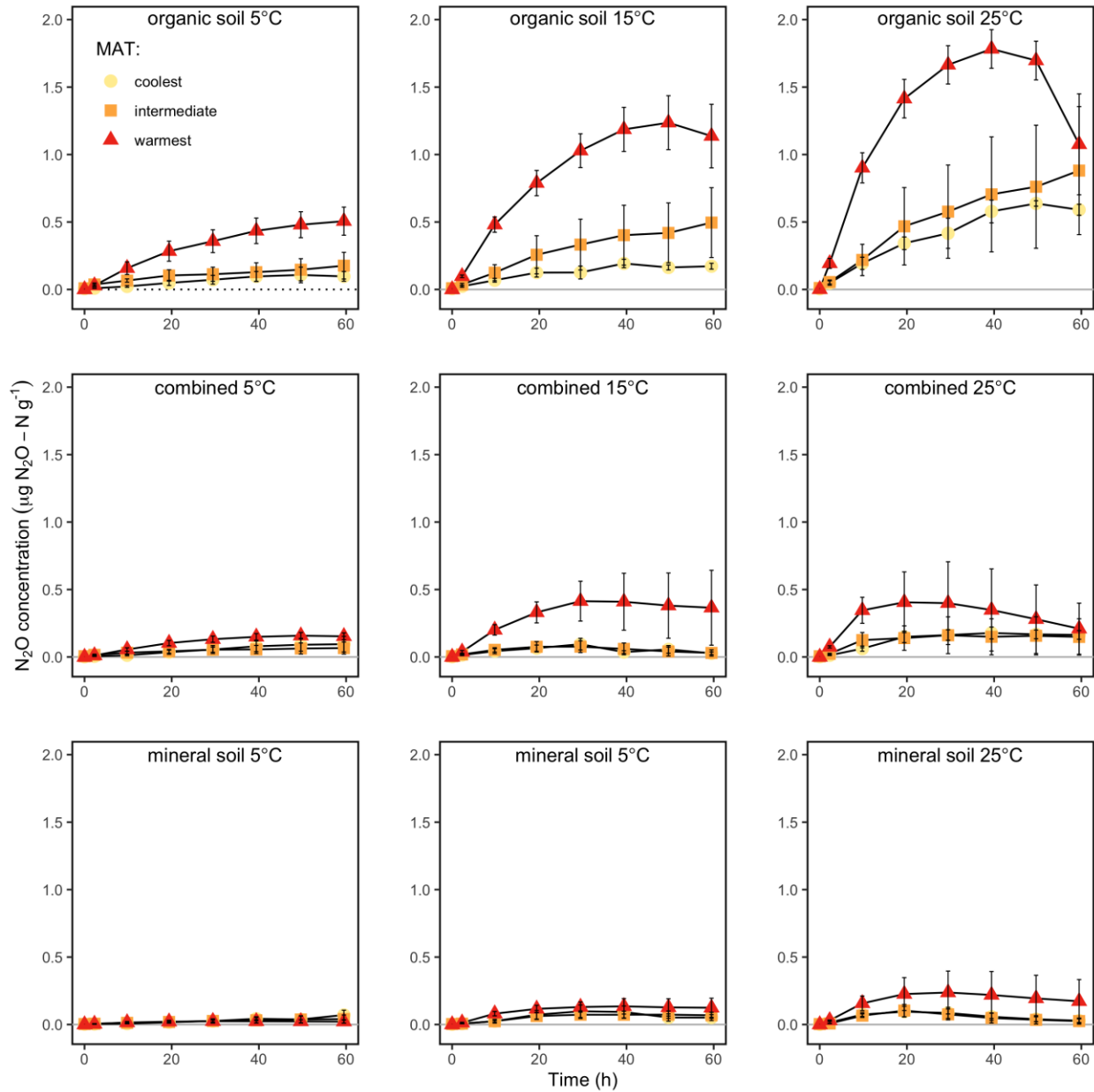
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1 **Table S1.** Primer sequences tested in this study for successful amplification with PCR. Bolded primers were successfully amplified
 2 and selected to assess denitrification functional gene abundance (qPCR) across the three boreal forest regions along a latitudinal
 3 transect.

Gene	Primer	Sequence (5' to 3')	Reference
Nitrite reductase (NO ₂ ⁻ to NO) <i>nirK</i>	nirK-876F nirK-1040R	ATY GGC GGV AYG GCG A GCC TCG ATC AGR TTR TGG TT	Henry et al. 2004
Nitrite reductase (NO ₂ ⁻ to NO) <i>nirS</i>	nirS-cd3aF nirS-R3cd	GTS AAC GTS AAG GAR ACS GG GAS TTC GGR TGS GTC TTG	Throbäck et al., 2004
Nitric oxide reductase (NO to N ₂ O) <i>norB</i>	cnorB2F cnorB7R	GAC AAG NNN TAC TGG TGG T TGN CCR TGN GCN GCN GT	Braker and Tiedje, 2003
Nitric oxide reductase (NO to N ₂ O) <i>nosZ</i>	nosZ-F nosZ-R	CGY TGT TCM TCG ACA GCC AG CAT GTG CAG NGC RTG GCA GAA	Röche et al., 2002
Nitrous oxide reductase (N ₂ O to N ₂) <i>nosZ II</i>	nosZ-II-F nosZ-II-R	CTI GGI CCI YTK CAY AC GCI GAR CAR AAI TCB GTR C	Jones et al., 2013

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6 **Figure S1.** N₂O-N concentrations in the headspace of organic, mineral, and combined profiles
 7 from three boreal forest regions during a 60-hr incubation at 5, 15, and 25°C. 'Combined' refers
 8 to incubations with organic and mineral soil in the same jar, physically isolated but with shared
 9 headspace. 'MAT' = mean annual temperature; the 'coolest' region is the Eagle River watershed
 10 (northern boreal), the 'intermediate' region is the Salmon River watershed (mid-boreal), and
 11 the 'warmest' region is the Grand Codroy watershed (southern boreal). See text for description
 12 of sites. Values provided as the mean ± one standard error (n=3).