

Dear Proof corrections team,

We have inserted requests for corrections throughout the pdf copy of the page proofs, attached here.

We have also copied these requests here in list form, in the attached Word document, for everything except the requests to remove italics from N and P when used to indicate chemical symbols.

We have also attached a PDF version of Table 1. The formatting of Table 1 in the proof is too difficult for making suggestions for changes in the proof itself; please see the format and column alignments in the attached Table 1 (also included in the Word document).

Because of these important formatting questions, we ask that you please send us another proof once corrections are made, so that we can double-check that we have communicated everything appropriately.

Thank you for your work on this!

Sincerely,  
Melany Fisk

List of requested corrections:

Throughout: Please remove italics for N and P when used to indicate chemical symbols. It would be correct where P refers to a statistic, which it often does in our text, or where N refers to a sample size, which we do not use. However there is inconsistency throughout the proofs in italicization of N and P as chemical symbols; please ensure that all chemical symbols are not italicized throughout the manuscript.

Top of pages 3, 5, 7, 9, and 11:  
the header “Fine Root Growth Increases in Response to Nitrogen Addition in Phosphorus-limited”  
is incomplete.

Please add “forests” after “limited”.

Or, if there is not enough room to add that, please change to read:

“Fine Root Growth Increases in Response to Nitrogen Addition in Hardwood Forests”

line 9: please delete the second "Present address:"

lines 11-12 and Metadata: please change Ruth Yanai's department to the “Department of Sustainable Resources Management”

line 41: insert “may” between “elements” and “co-limit”

line 101: insert "have" between "cortex," and "high"

line 132: omit “the” before USA

line 134: replace semicolon with a colon

line 156: replace "enzymes" with "enzyme"

line 206: omit hyphen between “well” and “developed.”

line 222: substitute “3” for “three” as this is followed by units (“week”) (as on line 243)

Line 244: replace “to avoid large rocks, locations were first probed”, with “Locations were probed”

Line 245: insert "below the surface soil" between "obstructions" and ", the" to read: “because of obstructions below the surface soil, the actual depth ...”

Table 1. Please remove caps from all but the first word of the caption: “Soil nutrient and litter properties in three mature northern hardwood forest stands”

Please also reformat this table to line up columns on the decimal, as shown here, and to space evenly between columns:

Table 1. Soil nutrient and litter properties in three mature northern hardwood forest stands.

Treatment	Resin-available P ( $\mu\text{g d}^{-1}$ )	Resin-available N ( $\mu\text{g d}^{-1}$ )	Litter P (%)	Litter N (%)	Extractable inorganic N ( $\text{mg m}^{-2}$ )		N mineralization ( $\text{mg m}^{-2} \text{d}^{-1}$ )		Ingrowth core soil inorganic N ( $\mu\text{g N g}^{-1}$ )		
					FF	Min	FF	Min	FF	0-10 cm	10-20 cm
Control	1.4 (0.7)	4.1 (1.4)	0.035 (0.008)	1.031 (0.047)	149 (42)	315 (128)	44 (8)	32 (18)	32.2 (10.7)	2.4 (1.1)	4.7 (2.5)
N	0.4 (0.1)	27.7 (8.1)	0.027 (0.004)	1.037 (0.049)	281 (104)	498 (88)	49 (4)	28 (4)	35.0 (14.3)	6.9 (3.4)	3.1 (0.5)
P	7.2 (3.7)	3.6 (2.9)	0.074 (0.011)	1.014 (0.040)	143 (59)	260 (95)	43 (13)	27 (9)	23.8 (16.8)	7.8 (4.1)	6.7 (4.9)
N+P	1.4 (0.4)	19.4 (4.5)	0.047 (0.005)	1.074 (0.045)	377 (120)	454 (65)	56 (11)	24 (9)	33.1 (7.7)	9.1 (3.4)	6.0 (2.2)

Anova results: df, F, significance (\* <0.05, \*\* <0.01, \*\*\* <0.001, \*\*\*\* <0.0001)

N	1, 6, 8.07*	1, 6, 44.83***	1, 6, 12.29 *	1, 6, 3.65	1, 14, 38.20 ****	1, 14, 0.16	1, 24, 1.63
P	1, 6, 7.71*	1, 6, 1.91	1, 6, 30.03 **	1, 6, 0.32	1, 14, 0.00	1, 14, 0.01	1, 24, 0.75
N×P	1, 6, 0.12	1, 6, 0.10	1, 6, 3.35	1, 6, 2.38	1, 14, 0.87	1, 14, 0.10	1, 24, 0.20
Depth					1, 14, 23.08 ***	1, 14, 8.20 *	2, 24, 14.60 ****
Depth×N					1, 14, 0.01	1, 14, 0.77	2, 24, 0.24
Depth×P					1, 14, 2.45	1, 14, 0.34	2, 24, 0.93

Litter P and N were measured in October 2016. Resin-available N and P were measured with resin strips installed in the O horizon (forest floor) in midsummer 2014, 2015, and 2016. Extractable inorganic N and N mineralization rates were measured in midsummer 2014 at two depths: forest floor (FF) and 0-10 cm mineral soil (Min). Inorganic N of ingrowth core soils at the time of collection were measured at three depths: forest floor (FF), 0-10 cm, and 10-20 cm. Values are means of the three replicate stands and error bars are standard errors of the means; df = degrees of freedom.

Line 272: omit “to 0.1 mg”

Lines 274-276. Please omit “Ash content was quantified by drying and ashing about 100 root samples at 450 °C for 4 h;”

Insert: “A subsample of roots was analyzed for ash content by dry ashing at 450 °C for four hours. All values are expressed on an ash-free dry mass basis by correcting for the average measured ash content of subsamples for 0-10 cm depth (7.0% ash) and 10-30 cm depth (15.6%);” between “constant mass at 70 °C and weighed.” and “ash fraction did not differ systematically between stands or treatments.”,

to read: “and weighed. A subsample of roots was analyzed for ash content by dry ashing at 450 °C for four hours. All values are expressed on an ash-free dry mass basis by correcting for the average measured ash content of subsamples for 0-10 cm depth (7.0% ash) and 10-30 cm depth (15.6%); ash fraction did not differ systematically between stands or treatments. Fine root biomass values...”

line 319: change “root” to “roots”

line 320: change “(< 1 mm) diameter was”  
to “ (< 1 mm diameter) were”

line 332: change “was” to “were”

line 359: omit the comma

line 372: please insert a space between “0.61” and “for”

lines 378-379: replace the 3 instances of “g m<sup>-2</sup>” with “g/m<sup>2</sup>” for consistency with later unit format

line 422: please change to lowercase l in “length”

Figures 3 and 4: the panels are labeled with uppercase letters but the captions use lowercase letters to refer to them. Please change “a” and “b” in the captions to “(A)” and “(B)”, and in Figure 4, change “c” to “(C)”.

line 441: replace “above ground” with “aboveground”, and insert “tree diameter growth” between “time frame that” and “aboveground” ,  
to read: “time frame that tree diameter growth aboveground responded...”

lines 447 and 454: Should "Figs." be replaced with "Figures", in both places, to be consistent with other figure references?

line 478: replace “2018” with “2019” .

This also addresses one of the queries – Gonzales and Yanai 2019 is in the reference list; there should be no Gonzales and Yanai 2018.

line 480: replace “N” with “Nitrogen”

line 482: insert “ (Figure 4)” after “soils”, and omit “; Figure 4” from line 483.

line 506: replace “respond” with “responds”

line 523: replace “aboveground” with “tree diameter”

line 550: replace “carbon” with “C”

line 559: replace “carbon” with “C”

line 583: replace “find” with “found”

line 619: insert "tree diameter" between "greater" and "response"

line 648 replace "reviewers" with "Joseph Wright and an anonymous reviewer"