## CORRECTION



## Correction to: Morphological variation of fine root systems and leaves in primary and secondary tropical forests of Hainan Island, China

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Received: 13 October 2020 / Accepted: 19 October 2020 © INRAE and Springer-Verlag France SAS, part of Springer Nature 2020

Correction to: Annals of Forest Science (2020) 77:76 https://doi.org/10.1007/s13595-020-00977-7

This correction stands to correct the listed errors in the original article:

In the **Abstract**, under the Results subheading, a sentence reads: "From secondary to primary forests, mean root system diameter increased 0.4 mm, mean specific root length decreased 3.5 m kg<sup>-1</sup>, and mean root system branching intensity decreased by 0.3 tips cm<sup>-1</sup>."

The authors request this be changed and noted as: "From secondary to primary forests, mean root system diameter increased 0.4 mm, mean specific root length decreased 0.35 m g<sup>-1</sup>, and mean root system branching intensity decreased by 0.3 tips cm<sup>-1</sup>.

2. An error in the calculation of Specific Root Length (SRL) was identified, which resulted in the wrong units being presented in the published version. Thus, for the following paragraph found in the **Results**:

The online version of the original article can be online at https://doi.org/10.1007/s13595-020-00977-7.

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Published online: 26 November 2020

"Regarding root morphology, the predicted-marginal mean difference in SRL was on average about 3.5 m kg<sup>-1</sup> greater in secondary than in primary forest (Fig. 4b). For example, in the secondary forest, values ranged from  $26.0~(\pm 1.9)~{\rm m~kg^{-1}}$  for species in the Annonaceae to  $78.3~(\pm 1.1)$  for the Juglandaceae. In the primary forest, values ranged from  $23.8~(\pm 1.1)~{\rm m~kg^{-1}}$  for species in the Annonaceae to  $71.9~(\pm 1.1)$  for the Juglandaceae."

The authors request this be changed and noted as:

"Regarding root morphology, the predicted-marginal mean difference in SRL was on average about 0.35 m g<sup>-1</sup> greater in secondary than in primary forest (Fig. 4b). For example, in the secondary forest, values ranged from 2.60 ( $\pm$ 0.06) m g<sup>-1</sup> for species in the Annonaceae to 7.83 ( $\pm$ 0.06) for the Juglandaceae. In the primary forest, values ranged from 2.36 ( $\pm$ 0.06) m g<sup>-1</sup> for species in the Annonaceae to 7.17 ( $\pm$ 0.06) for the Juglandaceae."

3. The analysis of variance model for SRL was re-run, resulting in very minor changes. Thus, changes to the statistics for SRL in Table 2 are requested. The table in the published version reads:

Trait (units)	Source	df	F	p	$\omega^2$
Specific root length	Species	71	10.26	***	0.238
$(m kg^{-1})$	Forest type	1	7.10	**	0.002
	Species×Forest type	58	3.58	***	0.054
	Residuals	1818	_	-	-

The authors request this be changed and noted as:



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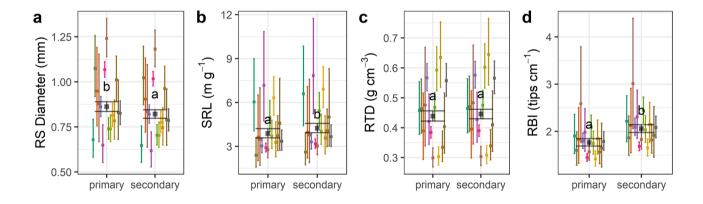
**Table 2** Analysis of variance table for linear models in the form: trait~species|family×forest type. Prior to model fitting, traits were log<sub>10</sub> transformed in the case of leaf area, root diameter, SRL, root tissue density, and root branching intensity to improve data normality

Trait (units)	Source	df	F	p	$\omega^2$
Specific root length (m g <sup>-1</sup> )	Species	71	10.19	***	0.237
	Forest type	1	7.64	**	0.002
	Species × Forest type	58	3.58	***	0.054
	Residuals	1818	-	-	_

p < 0.05, p < 0.01, p < 0.01, p < 0.001

- 4. The units in **Fig. 4b** for SRL are incorrect in the published version. There was also an error in the units label for Fig. 4c, however this was just a typo, and not calculation error. The authors request this be changed to this revised figure (filename: "Fig. 4\_ERRATUM.tiff"):
- 5. Linear regression models presented in Table 3 were rerun, again, resulting in very minor changes. Model slopes (β), standard error (se), and root-mean-squared error, all changed by a factor or 10. Thus the following minor changes to the statistics for SRL in Table 3 are requested. The table in the published version reads:

6. The units in **Fig. 5c** for SRL are incorrect in the published version. The authors request this be changed to this revised figure (filename: "Fig. 5\_ERRATUM.tiff")



Trait (units)	Forest type	Variable (units)	β	se	P	F(1,148)	$R^2$	RMSE
Specific root length (m	Secondary Primary	Soil BS (%)	0.262 1.171	0.188 0.551	n.s *	1.94 4.53	0.01 0.03	31.14 33.79
kg <sup>-1</sup> )	Secondary Primary	Soil P (g kg <sup>-1</sup> )	23.42 324.07	84.80 128.32	n.s *	0.08 6.38	< 0.01 0.04	31.33 33.58

The authors request this be changed and noted as:



<sup>&</sup>lt;sup>a</sup>Effect size =  $\omega^2$ , effect size ( $\omega^2$ ) values near 0.01 are considered small, near 0.06 are considered medium, and near 0.14 are considered large. *df* degrees of freedom

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Table 3 Regression results from least-squares linear models in the form of trait ~ variable.

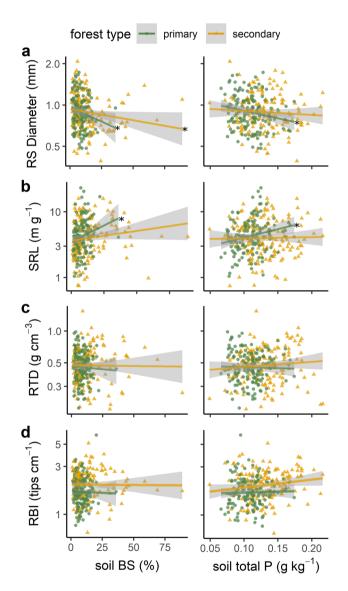
Table to accompany Fig. 5.

Models were fit separately by forest type

Trait (units)	Forest type	Variable (units)	β	Se	P	F(1,148)	$R^2$	RMSE
Specific root length (m g <sup>-1</sup> )	Secondary	Soil BS (%)	0.026	0.018	n.s	1.94	0.01	3.11
	Primary		0.117	0.055	*	4.53	0.03	3.38
	Secondary	Soil P (g kg <sup>-1</sup> )	2.34	8.48	n.s	0.08	< 0.01	3.13
	Primary		32.41	12.83	*	6.38	0.04	3.36

p < 0.05, p < 0.01, p < 0.01, p < 0.001

<sup>&</sup>lt;sup>a</sup>Model coefficient estimates (β), standard errors (se), and associated probabilities (p) are given for each variable by forest type (intercept terms are not shown). Regression F-statistics (F) and coefficients of determination ( $R^2$ ) and root-mean-squared error (RMSE) are given for each model. The F(1,148) critical value at α = 0.05 is 3.905. Italicized model coefficients show significant ANCOVA interaction terms between forest type and soil variable (p < 0.05). n.s. non-significant, Probabilities are denoted as follows:



## 7. In the **List of abbreviated terms**:

The units for SRL (Specific Root Length) were given as " $m kg^{-1}$ ", which is incorrect.

The authors request this be changed to: " $m g^{-1}$ ".

