



UNIVERSITY OF TARTU

Institute of Ecology and Earth
Sciences

Fine root C exudation and respiration of early- and late successional tree species in future climate

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Egilsstaðir, 7.10.21



Fine root carbon exudation



eR

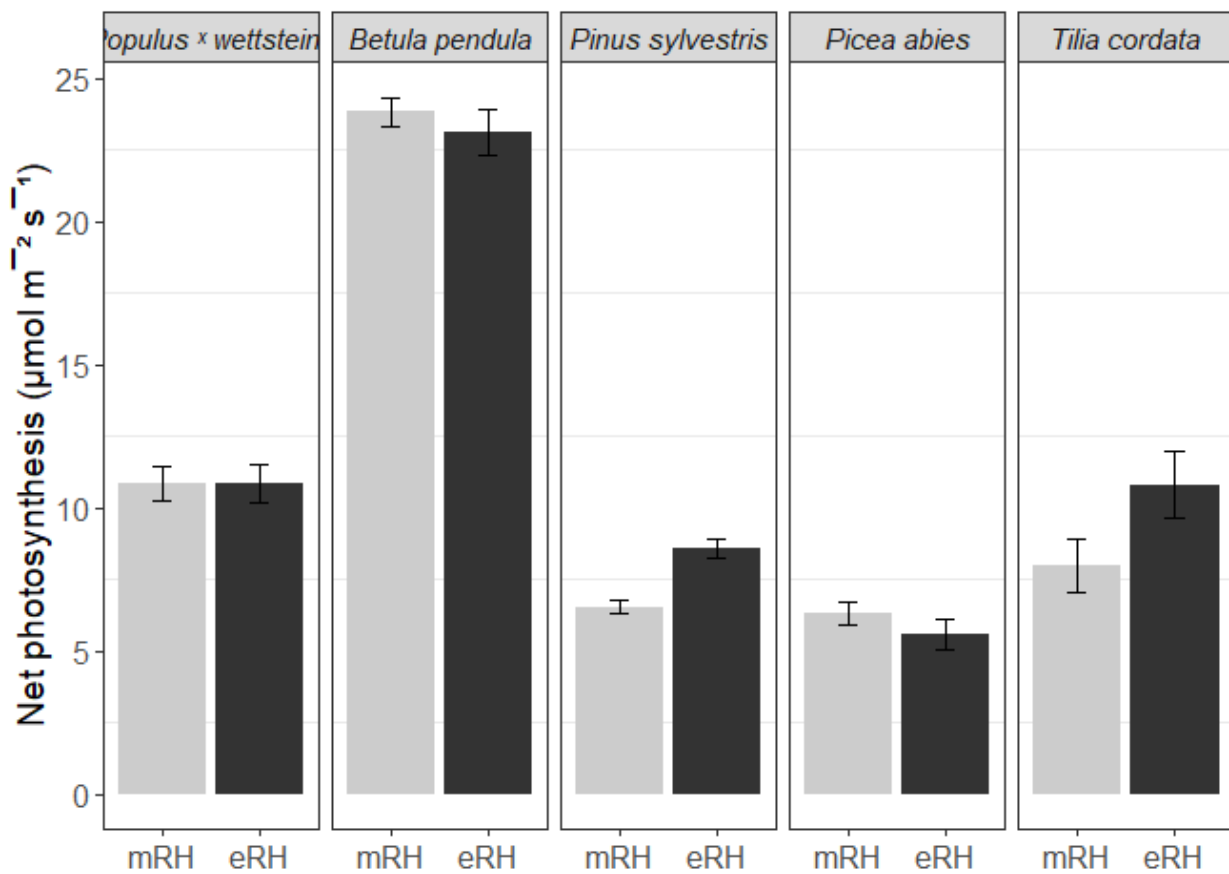
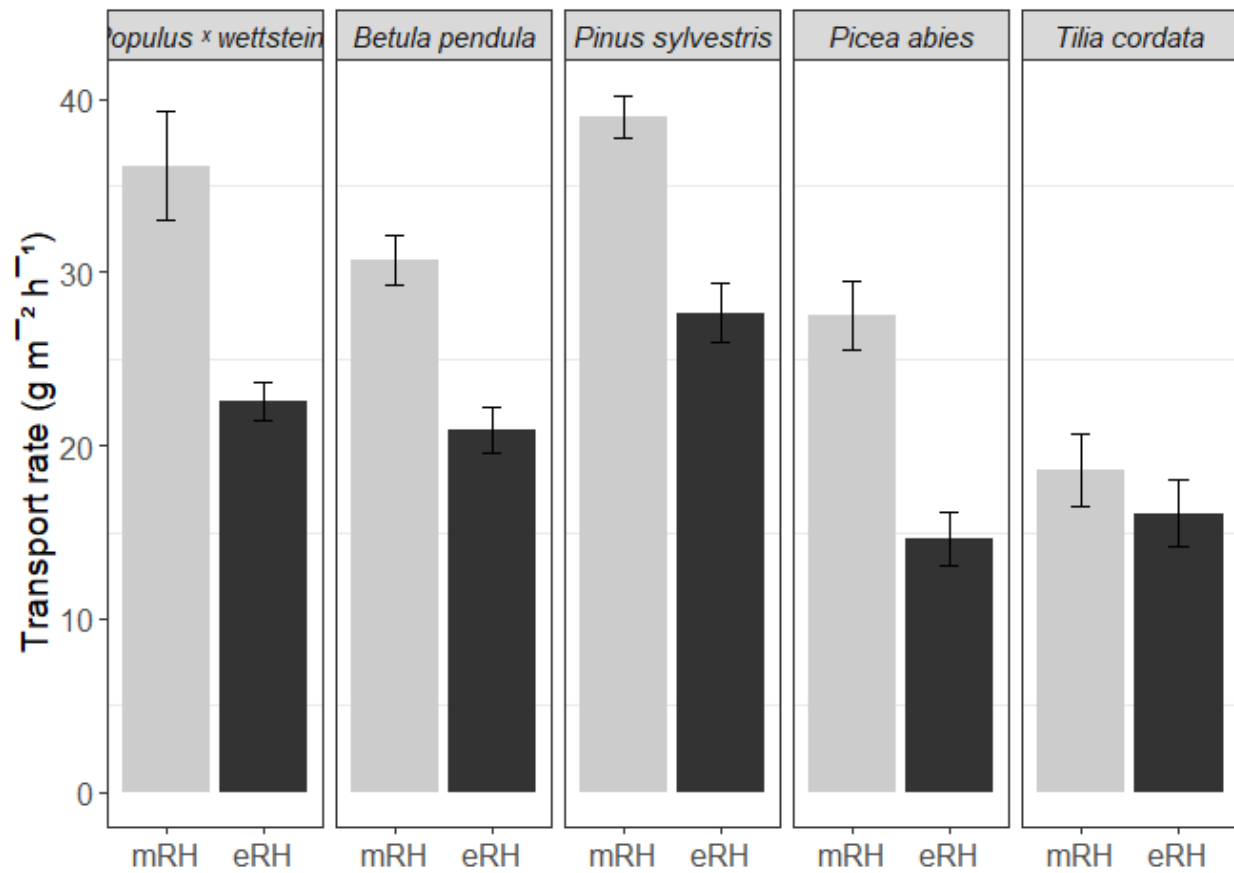
Photosynthesis

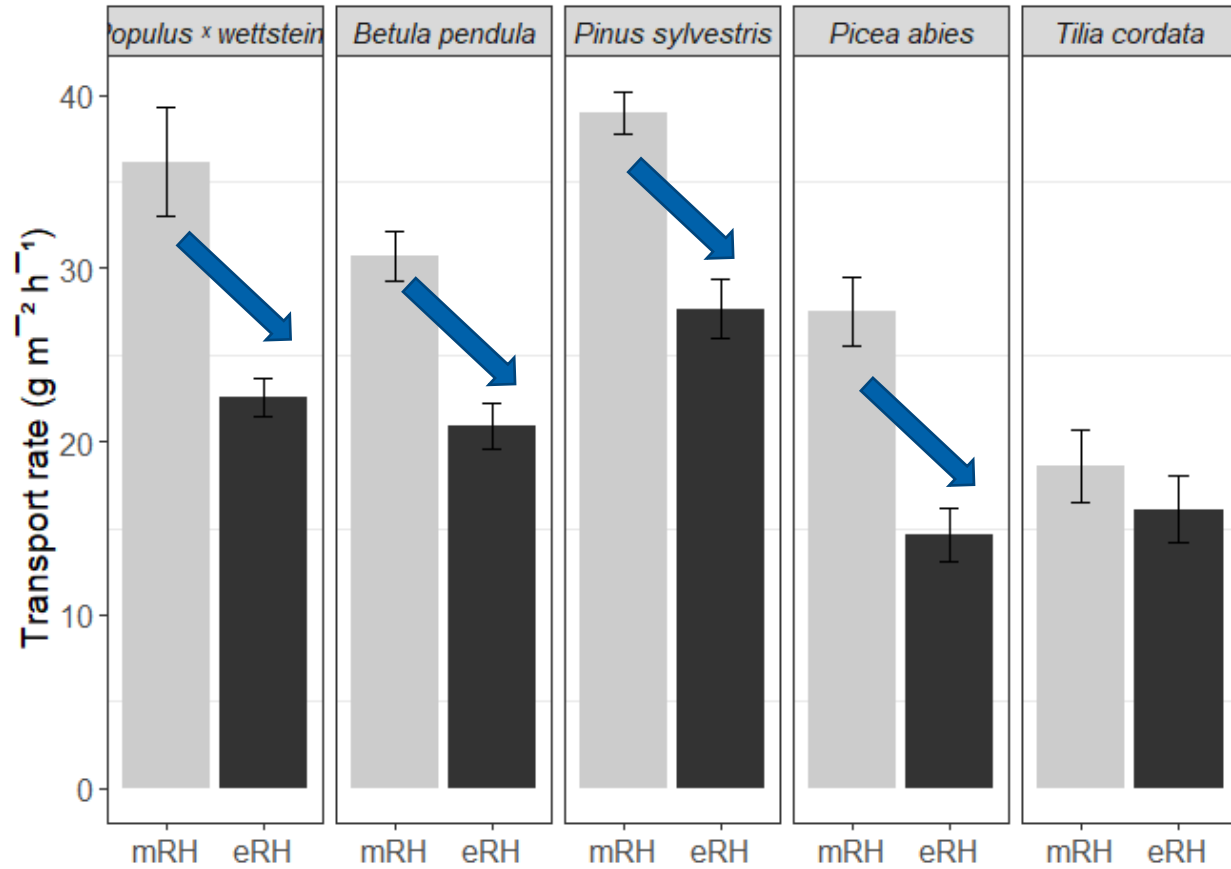
Biomass (growth)

Fine root respiration

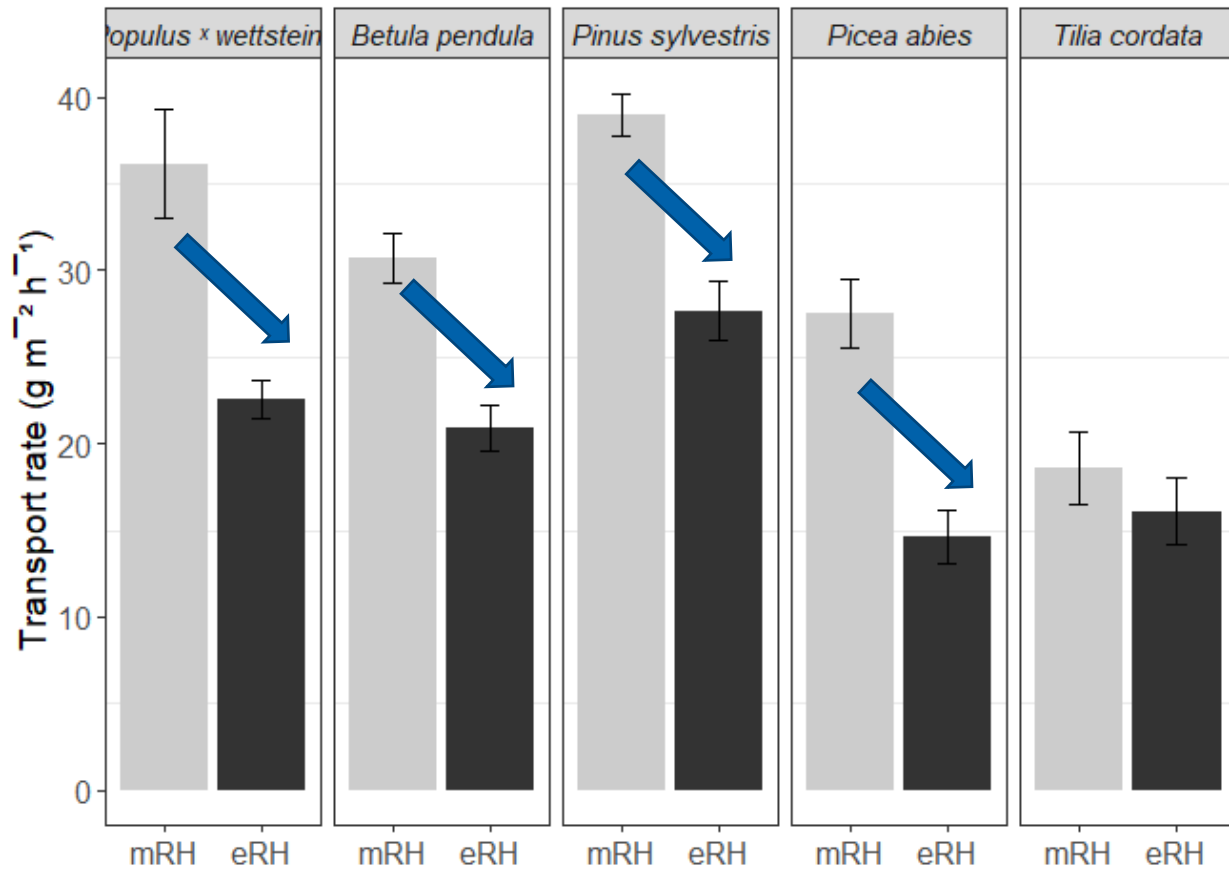
Capturing root exudates — Phillips *et al.* (2008) *Functional Ecology*



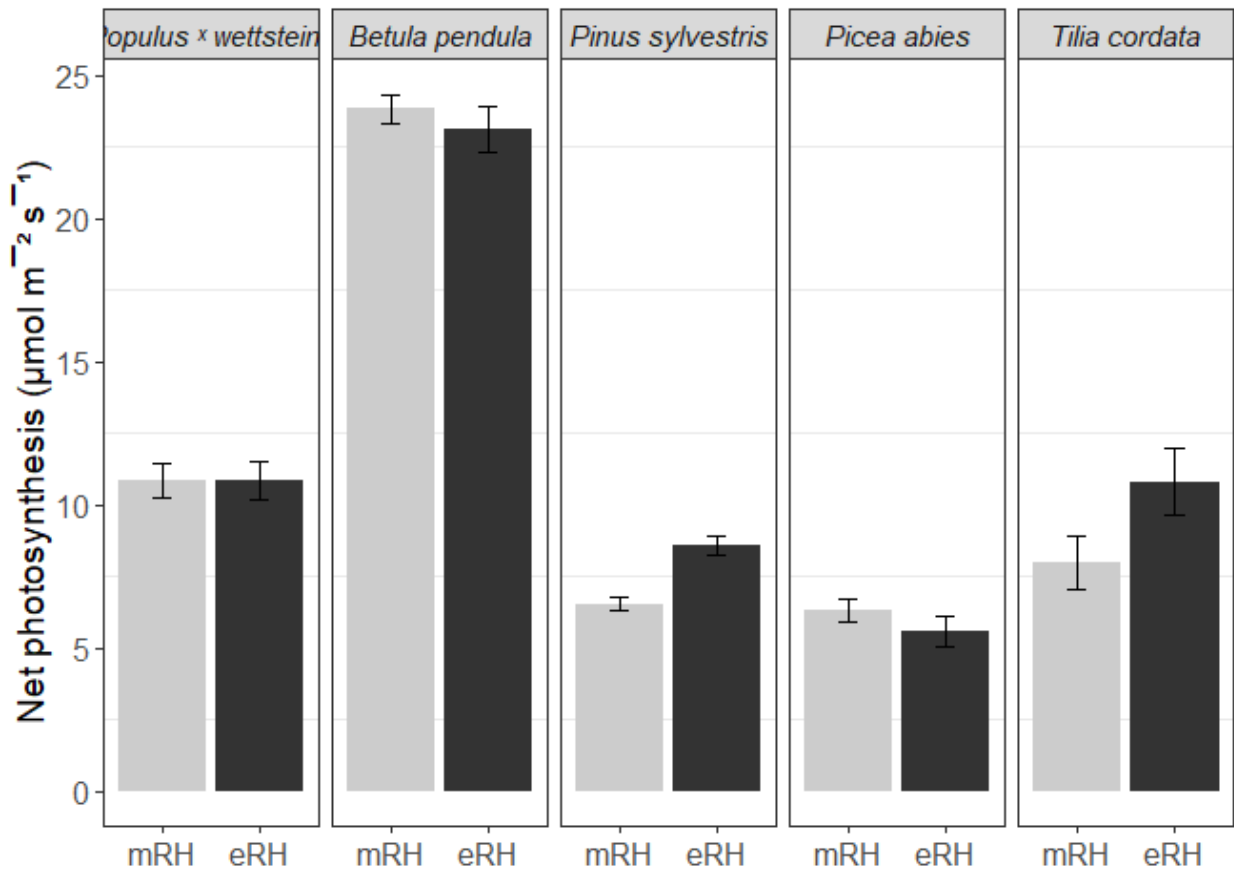


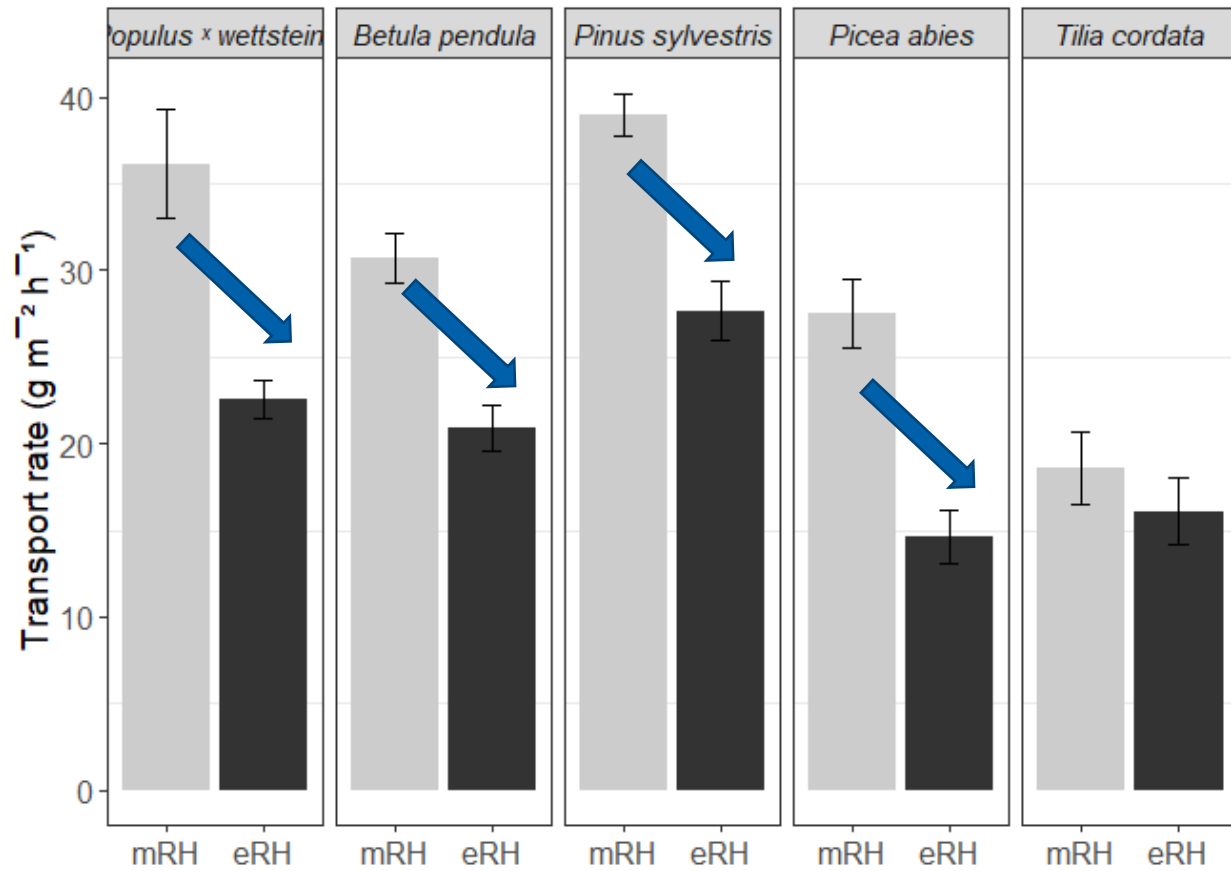


Transpiration rate
decreasing at
elevated air humidity
conditions

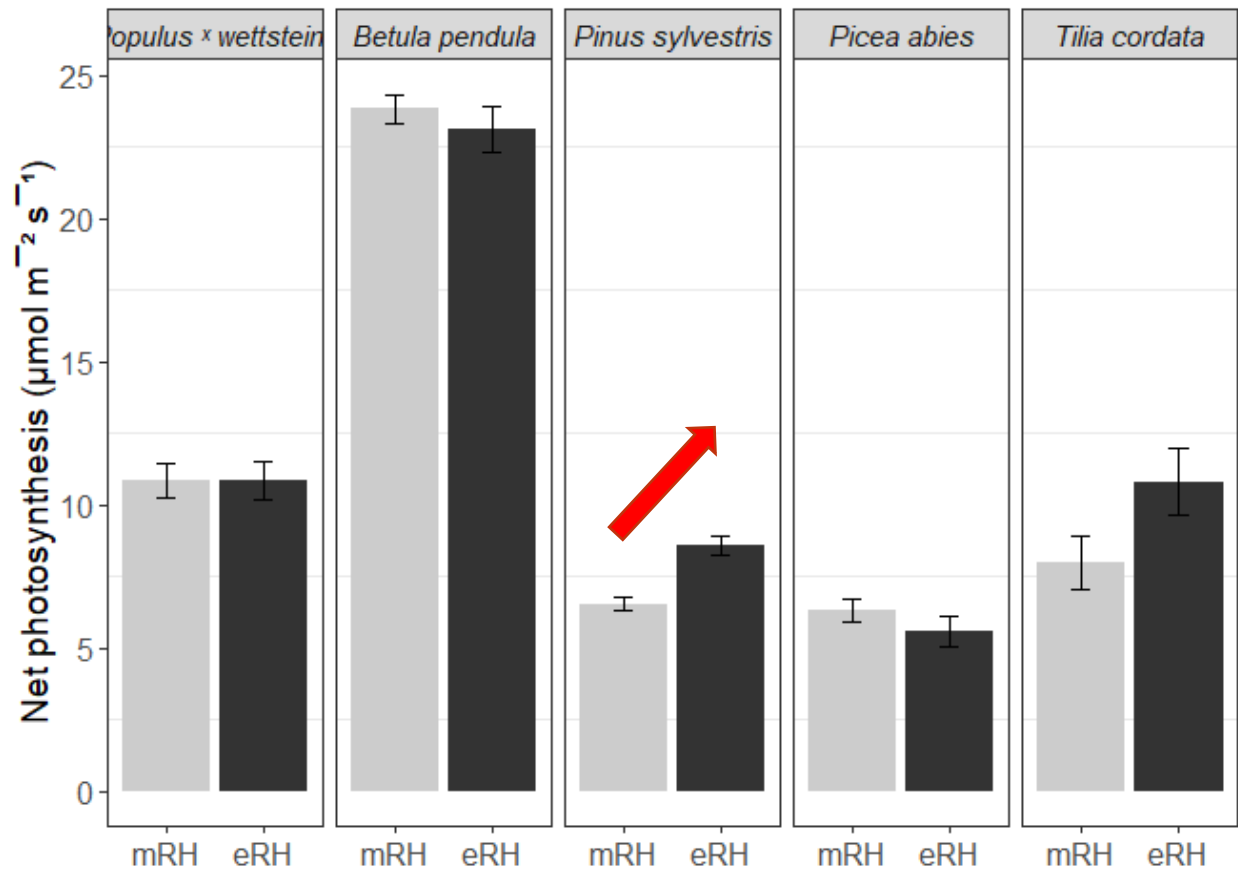


Transpiration rate decreasing at elevated air humidity conditions



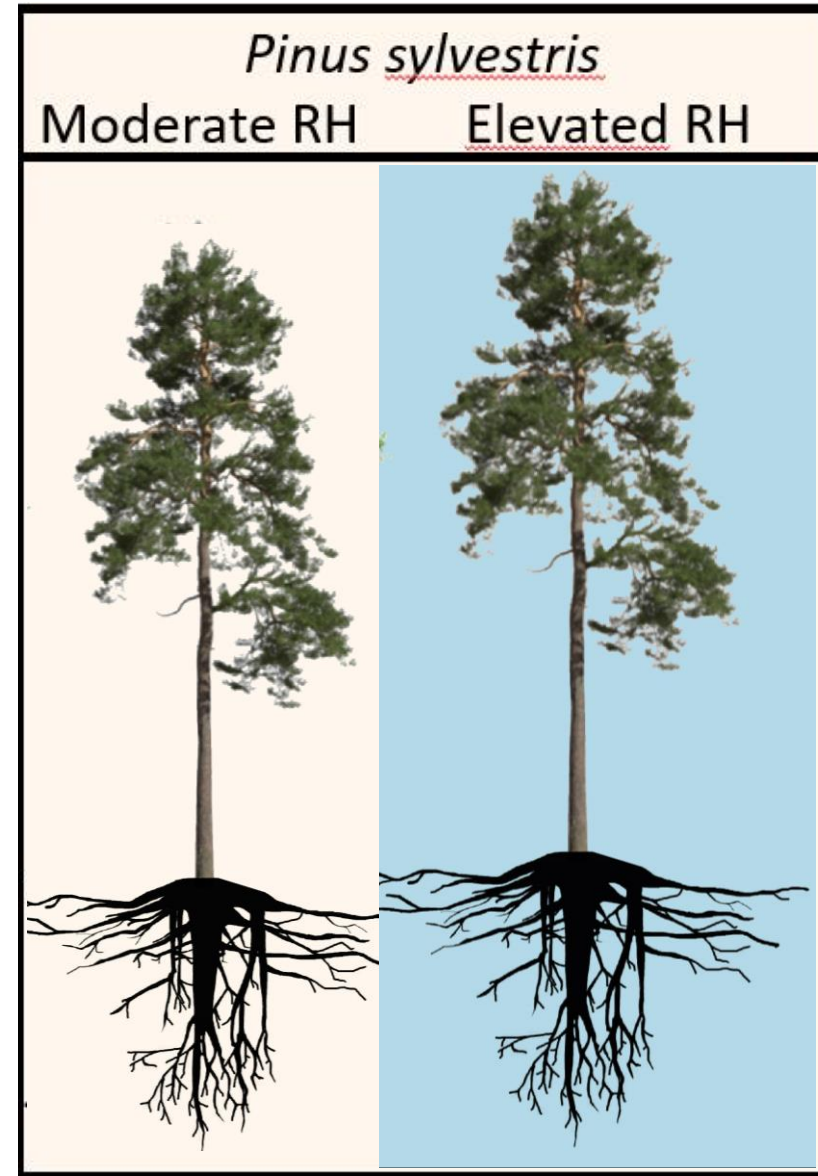


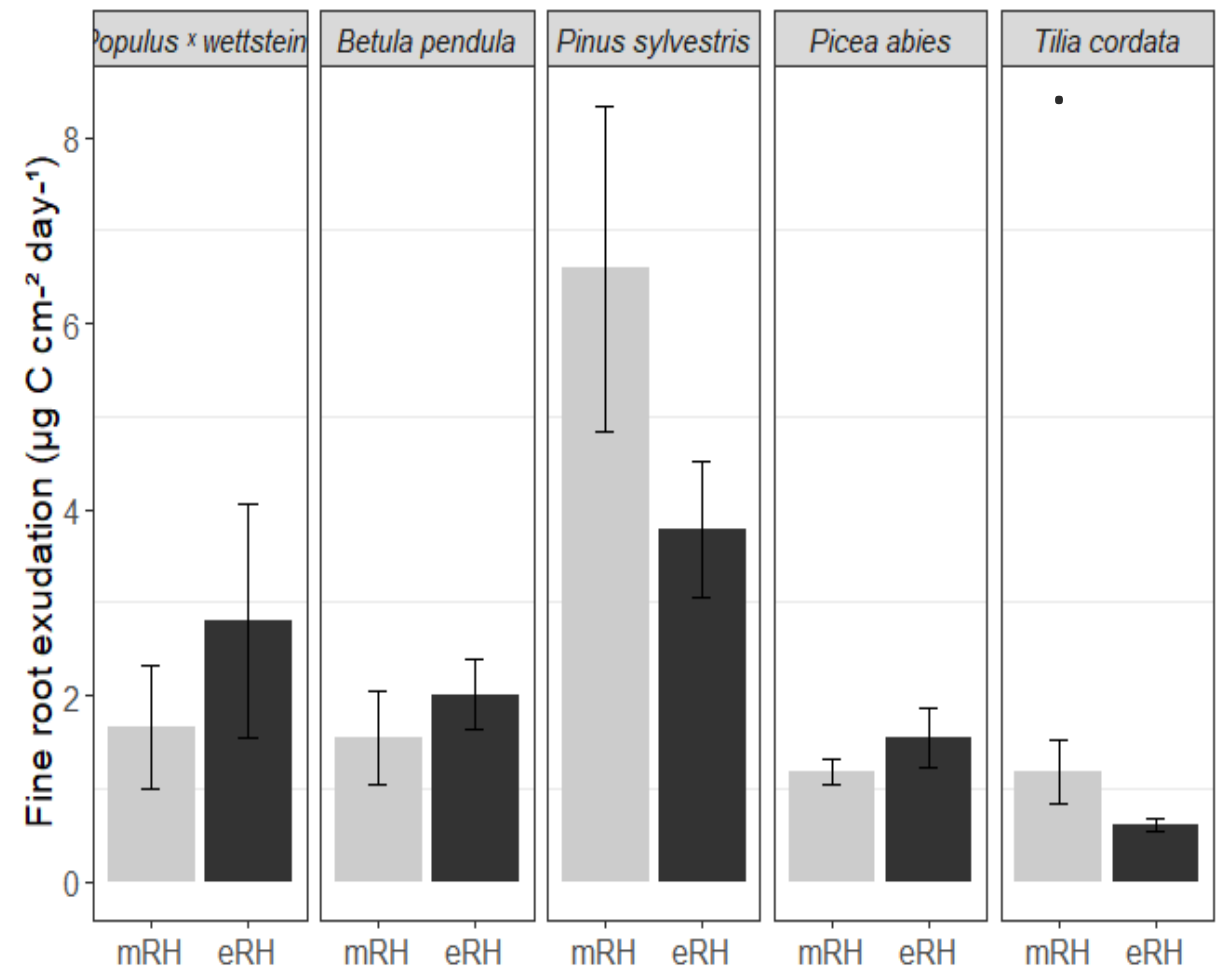
Transpiration rate decreasing at elevated air humidity conditions

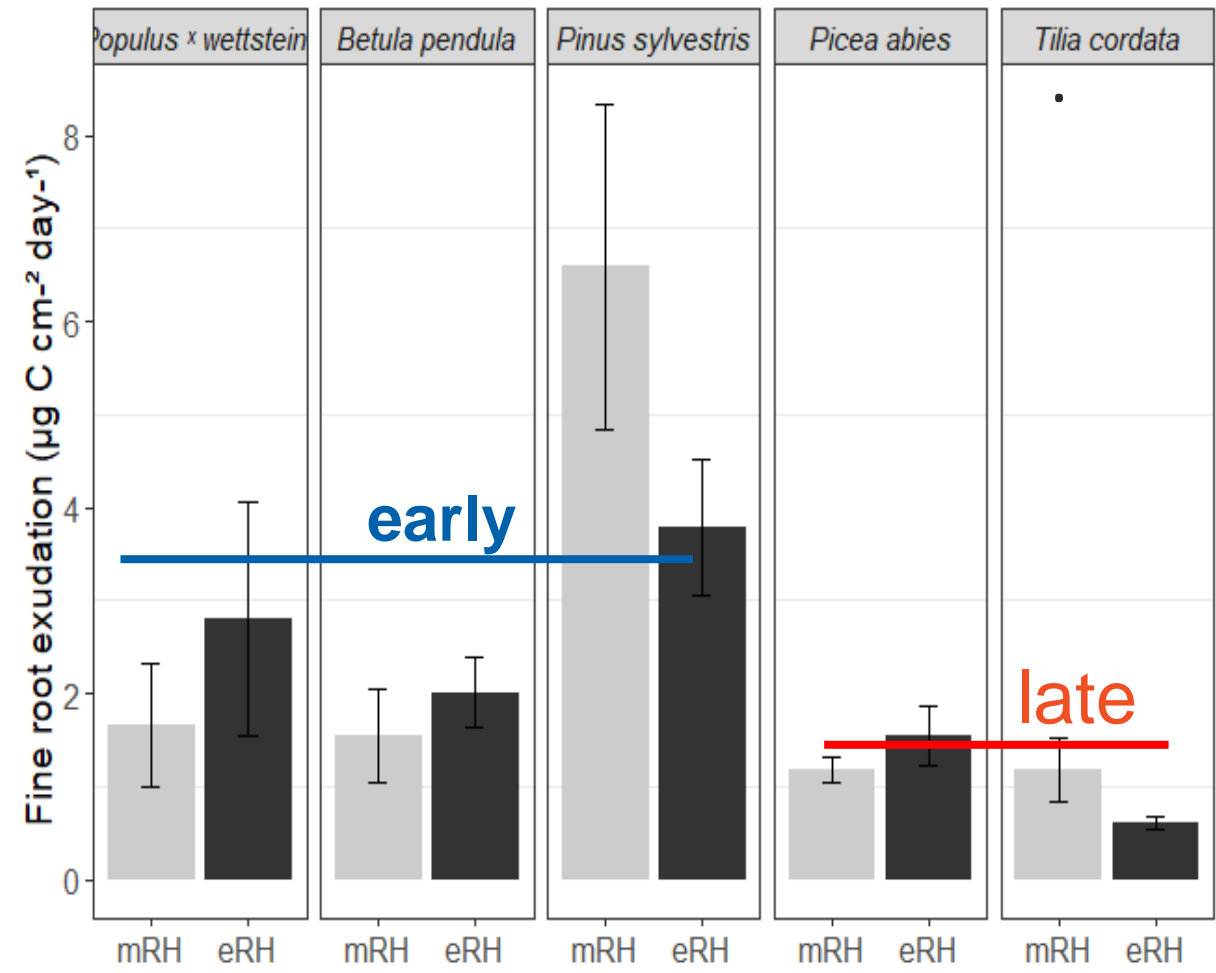


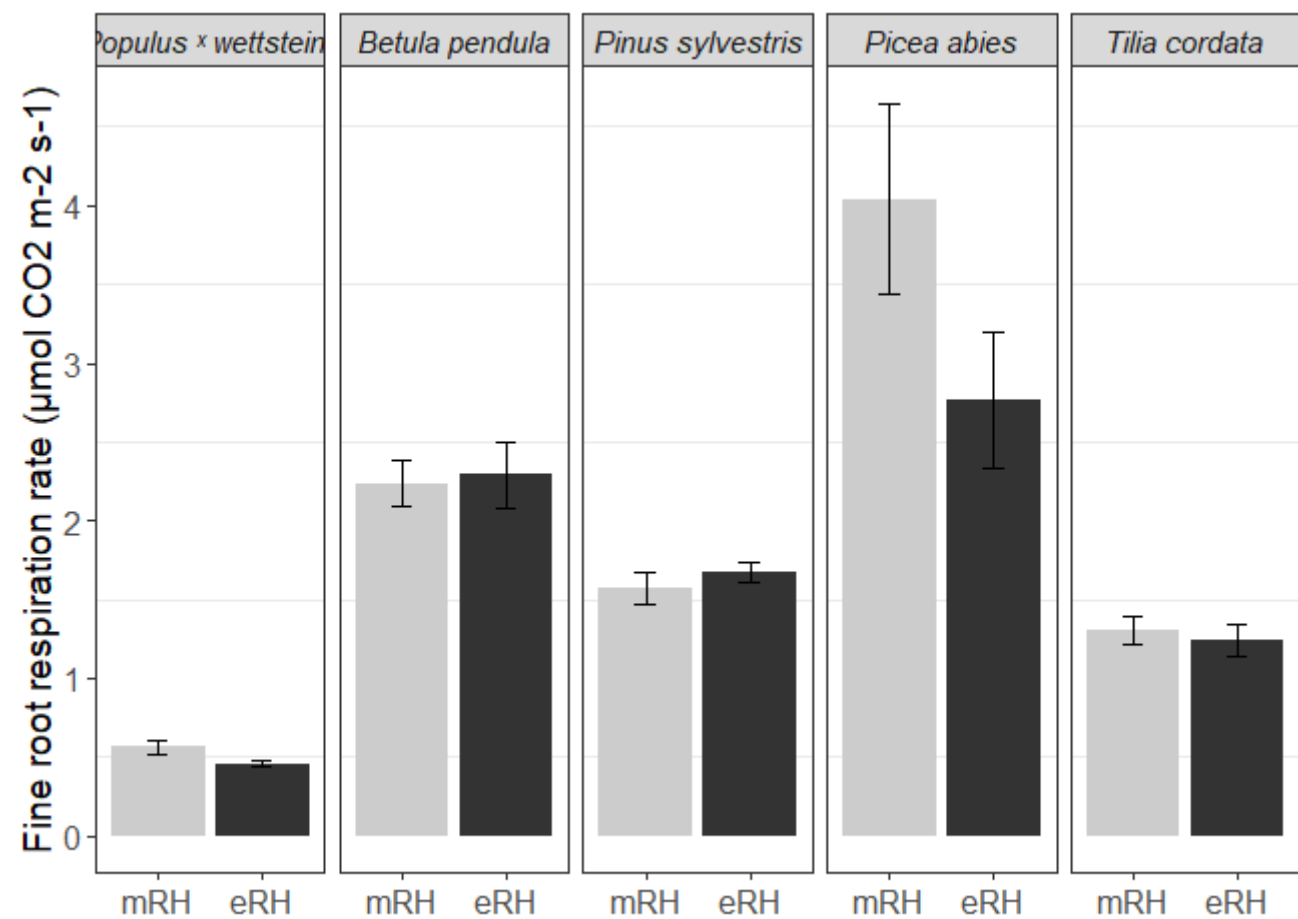
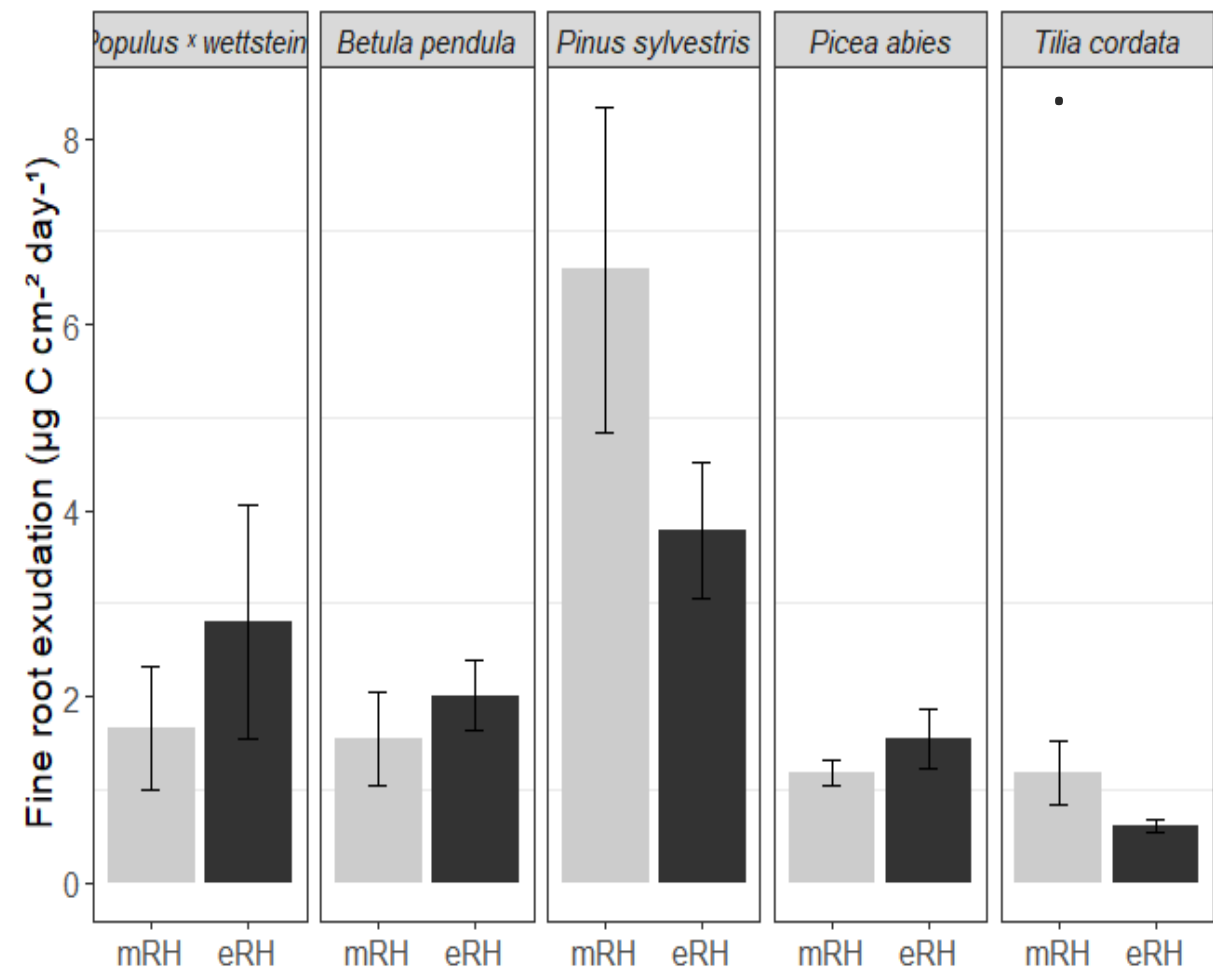
		mRH	eRH
Populus	AG	86±5	79±4
	BG	26±2	19±2
Betula	AG	75±5	73±4
	BG	22±1	19±1
Pinus	AG	86±5	100±4
	BG	22±1	26±1
Picea	AG	65±5	62±5
	BG	13±1	11±1
Tilia	AG	84±13	127±11
	BG	51±7	55±5

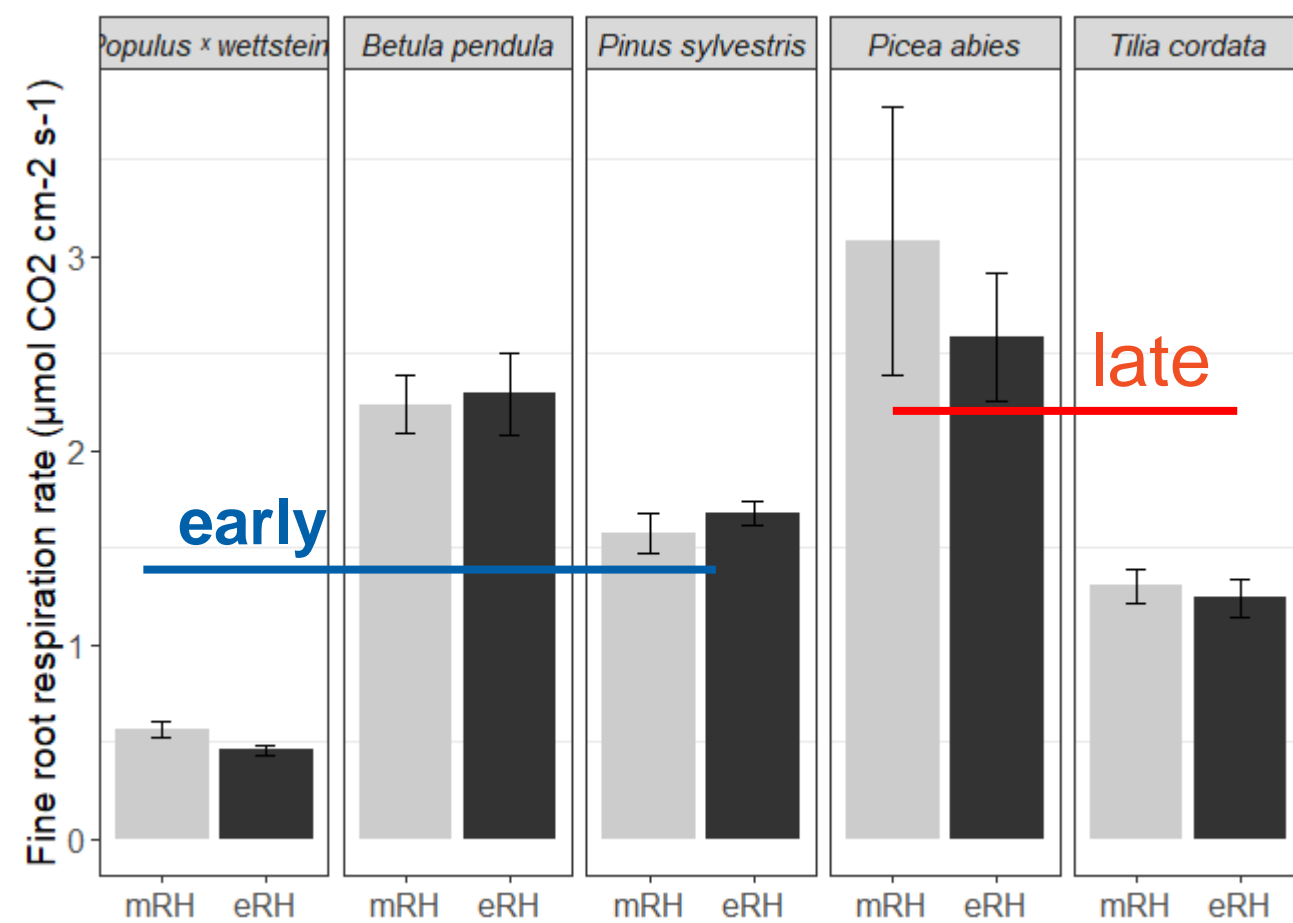
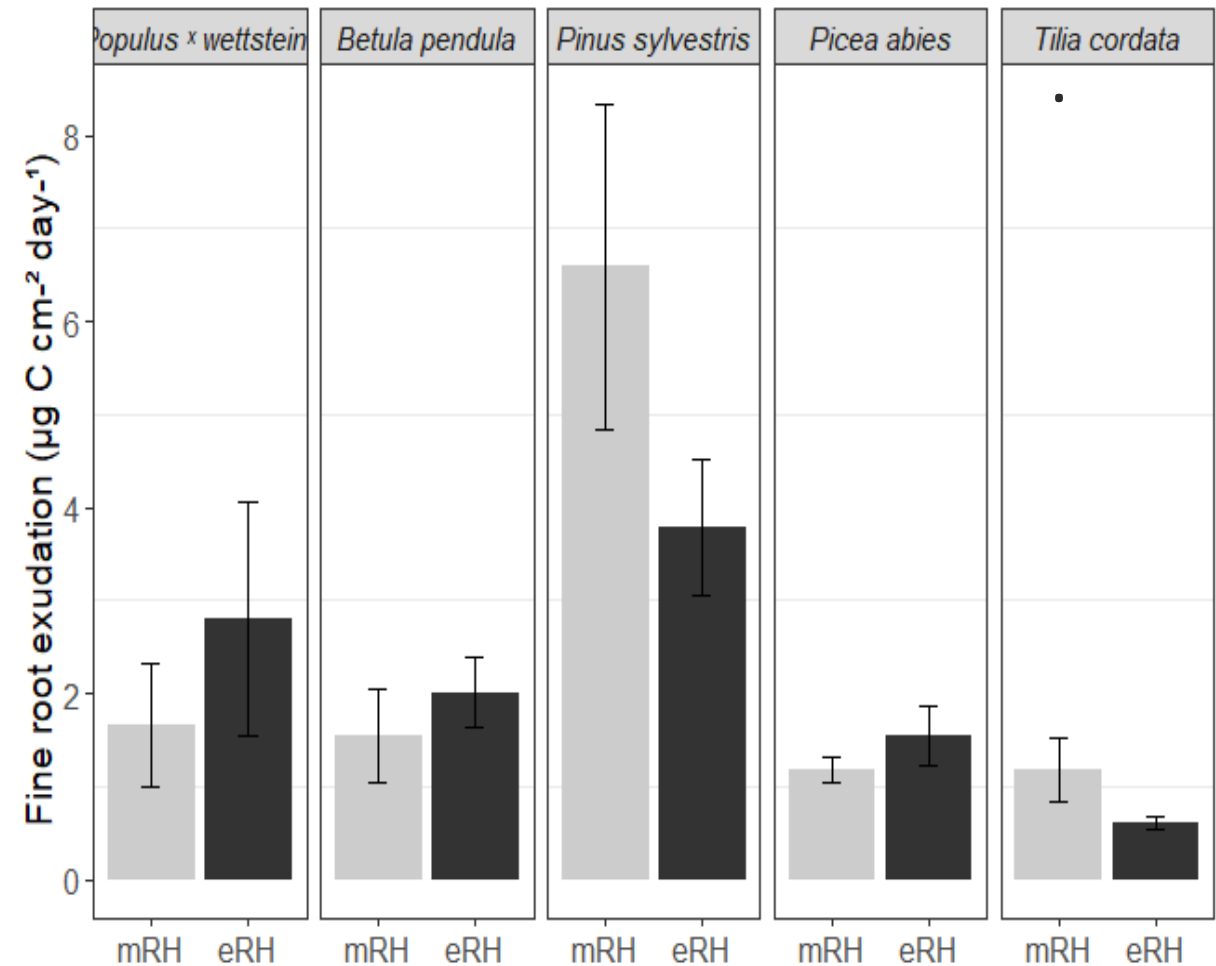
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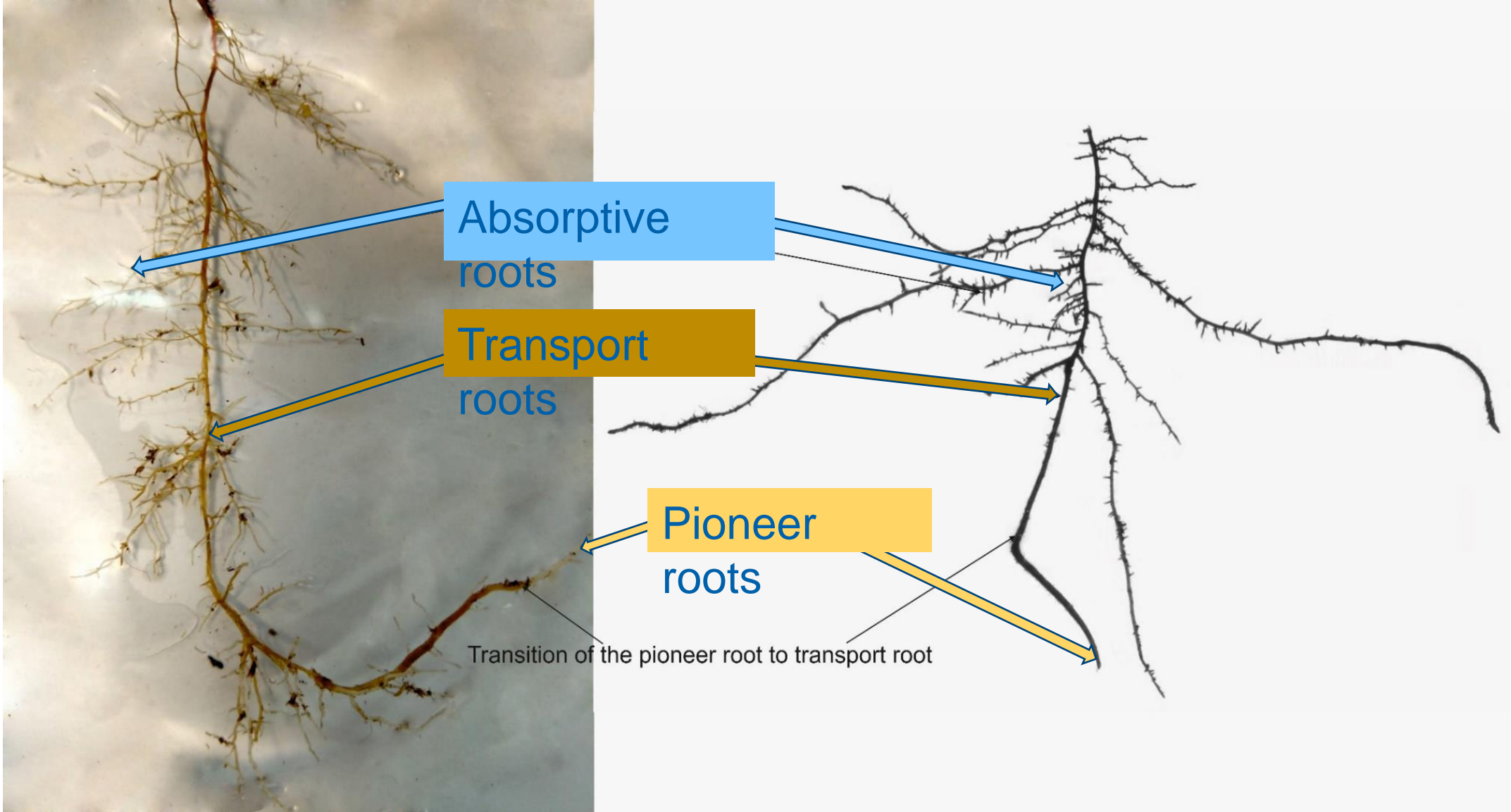


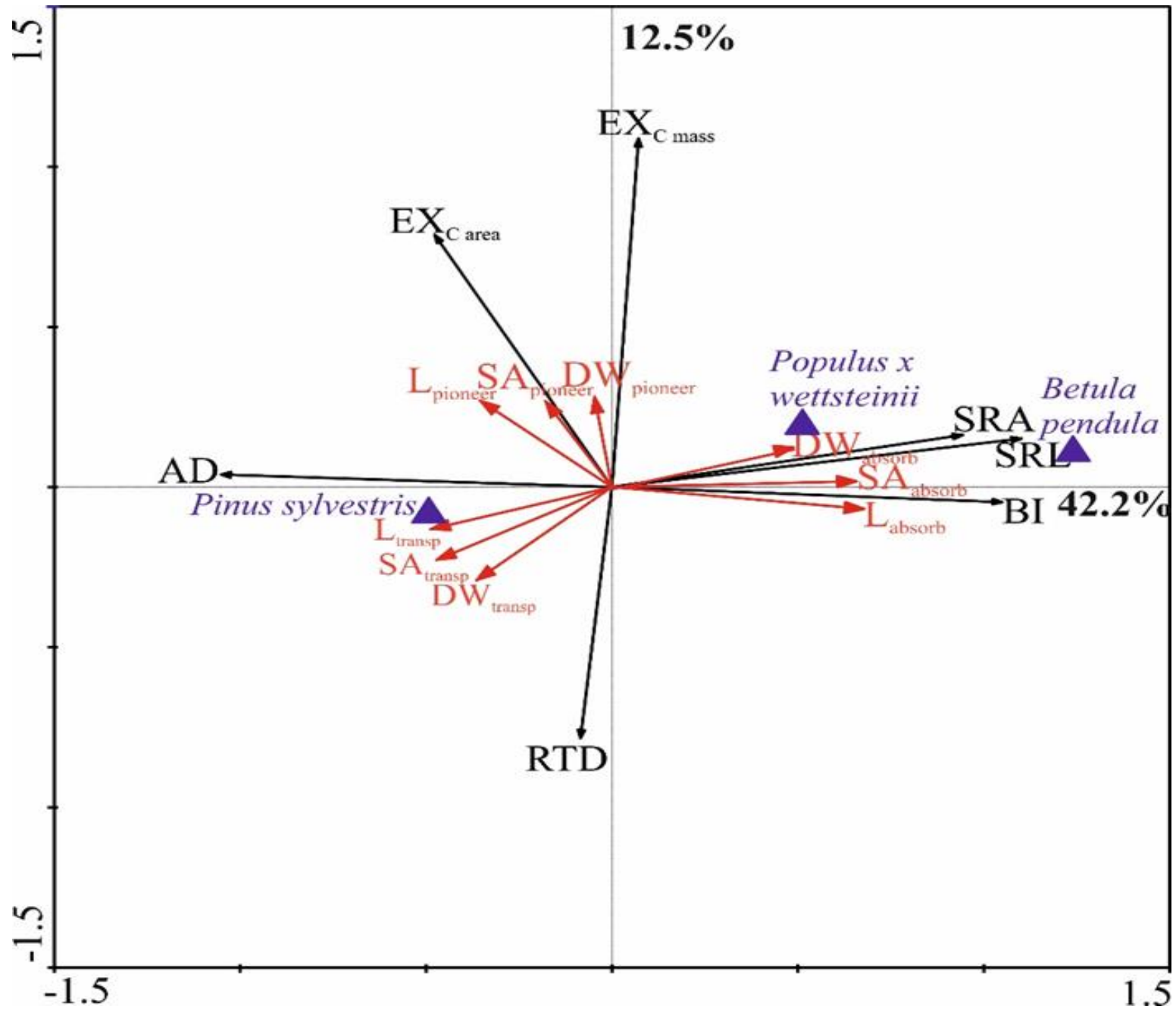




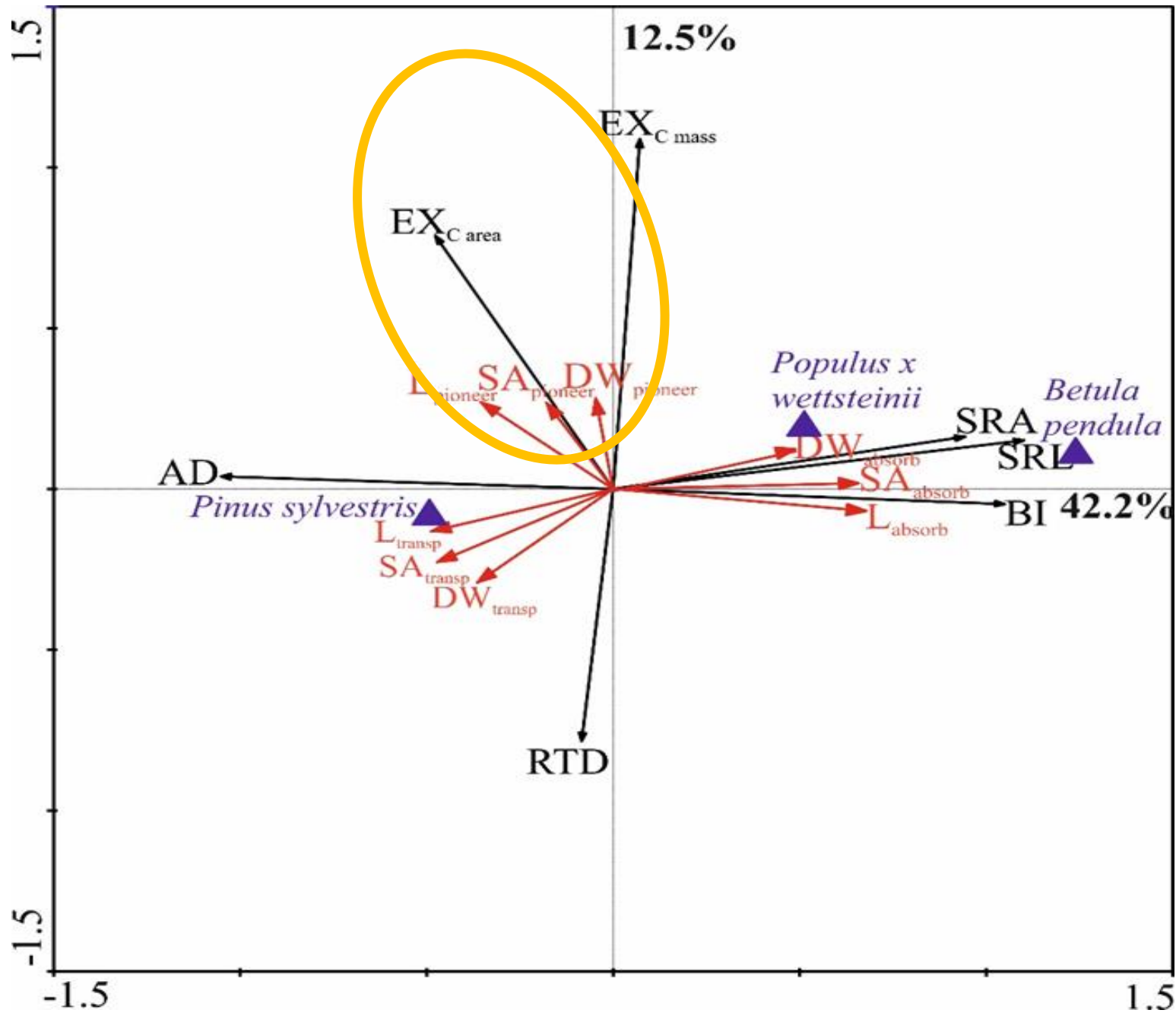




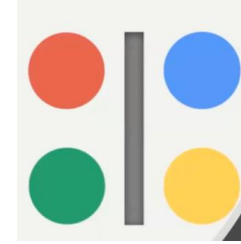
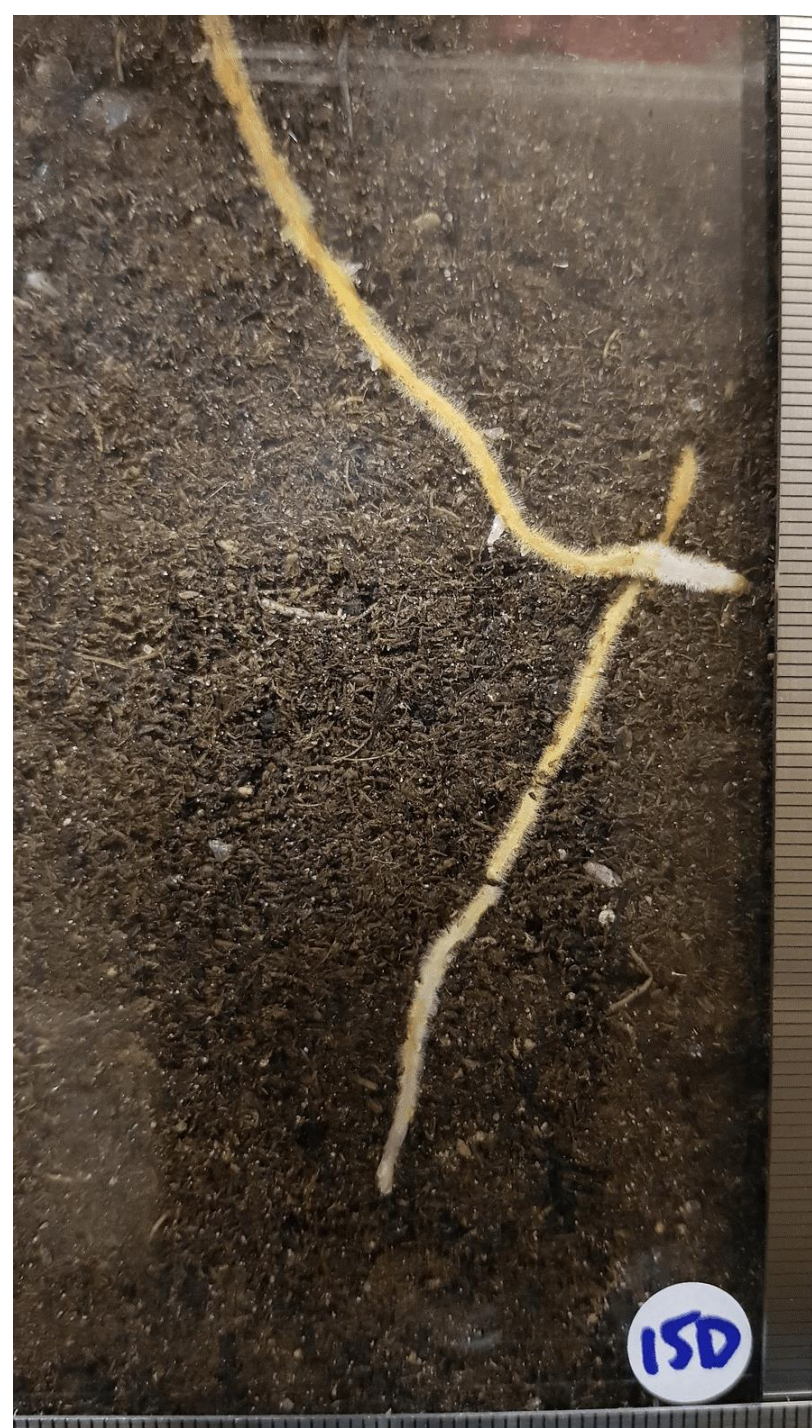




Sell et al 2021 Tree Physiology
 DOI: 10.1093/treephys/tpab118



Sell et al 2021 Tree Physiology
 DOI: 10.1093/treephys/tpab118



RootPainter

Smith et al 2020 bioRxiv

DOI:

10.1101/2020.04.16.0444

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Thank You for Your attention!

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