

[10.1071/BT21015](https://doi.org/10.1071/BT21015)

Australian Journal of Botany

Supplementary Material

Does drought limit resprouter recruitment in Erica? A test using seeder and resprouter seedlings of Erica coccinea

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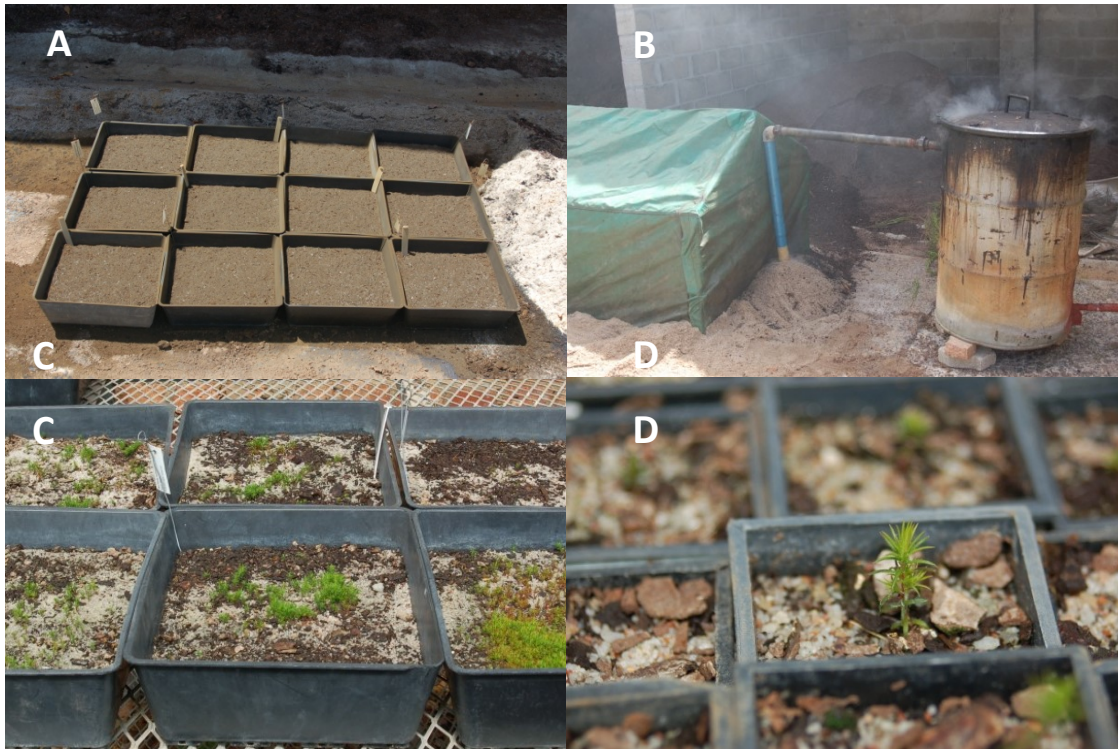


Figure S1: *Erica coccinea* seedlings were sown into large trays (A) in February, 2013 and sealed in a tent that was then filled with smoke (B). Seedlings emerged in April (C). In September, seedlings were transplanted into individual pots (D). Drought commenced in March, 2014.

Table S1: Full factorial ANOVAs (F statistic and P value) of *Erica coccinea* seedling (n=8) responses including photosynthetic rate (a), conductance (b) and water potential (c) for different forms (resprouter and seeder) under the different treatments (control and drought) for each measurement day of the drought period
Significance is indicated by an asterisk and highlighted in bold text.

a) Photosynthetic rate			
Day	Form	Treatment	Interaction
0	0.6 (p=.446)	1.81 (p=.190)	3.97 (p=.056)
3	0 (p=.956)	4.53 (p=.042)*	0.48 (p=.493)
7	0.93 (p=.344)	0.59 (p=.448)	0.16 (p=.694)
9	2.23 (p=.147)	1.53 (p=.226)	0.38 (p=.545)
12	1.94 (p=.175)	1.11 (p=.302)	2.49 (p=.126)
18	0.45 (p=.508)	2.5 (p=.126)	0.42 (p=.524)
25	0.01 (p=.915)	6.8 (p=.015)*	0.23 (p=.633)
32	0.01 (p=.905)	2.64 (p=.116)	0.19 (p=.666)
40	0 (p=.970)	27.66 (p<.001)*	1.12 (p=.299)
b) Stomatal conductance			
Day	Form	Treatment	Interaction
0	0 (p=.987)	0.23 (p=.638)	1.97 (p=.171)
3	1.74 (p=.198)	1.42 (p=.243)	1.14 (p=.295)
7	0.4 (p=.530)	0.72 (p=.404)	1.57 (p=.220)
9	3.14 (p=.087)	13.89 (p<.001)*	1.52 (p=.227)
12	2.38 (p=.134)	8.51 (p=.007)*	0.53 (p=.471)
18	0.33 (p=.570)	21.25 (p<.001)*	1.55 (p=.224)
25	0.55 (p=.464)	21.11 (p<.001)*	1.65 (p=.210)
32	2.47 (p=.127)	7.18 (p=.012)*	0 (p=.961)
40	0.05 (p=.831)	93.41 (p<.001)*	1.15 (p=.294)
c) Water potential			
Day	Form	Treatment	Interaction
0	0.32 (p=.573)	1.25 (p=.272)	7.67 (p=.001)*
3	0.03 (p=.871)	4.28 (p=.049)*	0.5 (p=.483)
7	18.1 (p<.001)*	2.99 (p=.095)	2.28 (p=.142)
9	6.79 (p=.015)*	0.8 (p=.380)	0.17 (p=.685)
12	4.45 (p=.044)*	2.76 (p=.108)	0.13 (p=.724)
18	0.11 (p=.741)	3.46 (p=.074)	0.02 (p=.877)
25	0.75 (p=.395)	6.59 (p=.016)*	0.06 (p=.803)
32	0.32 (p=.579)	15.39 (p<.001)*	0.41 (p=.530)
40	0.08 (p=.784)	133.66 (p<.001)*	0.02 (p=.881)

Table S2: Duncan’s post-hoc test for days yielding significantly different means from the full factorial ANOVAs of *Erica coccinea* seedling responses including (a) photosynthetic rate, (b) conductance and (c) water potential for different forms (resprouter and seeder) under the different treatments (control and drought) for measurement days during the drought period which indicated significant differences (Table S1)
Different letters indicate significant differences within each day.

a) Photosynthesis		
Day	Significant Categories	Mean
Day 3	Drought	3.91 ± 0.46 ^b
	Control	5.27 ± 0.42 ^a
Day 25	Drought	4.07 ± 0.48 ^b
	Control	6.45 ± 0.74 ^a
Day 40	Drought	2.22 ± 0.71 ^b
	Control	7.85 ± 0.76 ^a
b) Conductance		
Day	Significant Categories	Mean
Day 9	Drought	0.167 ± 0.013 ^b
	Control	0.265 ± 0.024 ^a
Day 12	Drought	0.161 ± 0.021 ^b
	Control	0.257 ± 0.026 ^a
Day 18	Drought	0.085 ± 0.016 ^b
	Control	0.193 ± 0.017 ^a
Day 25	Drought	0.078 ± 0.011 ^b
	Control	0.173 ± 0.017 ^a
Day 32	Drought	0.072 ± 0.022 ^b
	Control	0.135 ± 0.015 ^a
Day 40	Drought	0.014 ± 0.007 ^b
	Control	0.198 ± 0.017 ^a
c) Water Potential		
Day	Significant categories	Mean
Day 0	Seeder (Control)	-0.691 ± 0.073 ^b
	Resprouter (Control)	-0.584 ± 0.070 ^{ab}
	Seeder (Drought)	-0.479 ± 0.056 ^a
	Resprouter (Drought)	-0.444 ± 0.053 ^a
Day 3	Drought	-1.320 ± 0.264 ^b
	Control	-0.743 ± 0.065 ^a
Day 7	Resprouter	-1.141 ± 0.071 ^b
	Seeder	-0.777 ± 0.055 ^a
Day 9	Resprouter	-0.884 ± 0.073 ^b
	Seeder	-0.614 ± 0.071 ^a
Day 12	Resprouter	-0.943 ± 0.069 ^b
	Seeder	-0.773 ± 0.044 ^a
Day 25	Drought	-1.388 ± 0.224 ^b
	Control	-0.764 ± 0.054 ^a
Day 32	Drought	-3.196 ± 0.594 ^b
	Control	-0.840 ± 0.041 ^a
Day 40	Drought	-5.065 ± 0.373 ^b
	Control	-0.705 ± 0.044 ^a

Table S3: T-test for the difference between treatments (control minus drought) for both forms of *Erica coccinea* seedling responses including (a) photosynthetic rate, (b) stomatal conductance and (c) water potential for different forms (resprouter and seeder) under the different treatments (control and drought) for measurement days during the drought period which indicated significant differences (Table S1)

Different letters indicate significant differences within each day.

a) Photosynthetic rate

Day	T-value	df	P-value
0	0.932	2	ns
3	0.348	2	ns
7	0.199	2	ns
9	0.306	2	ns
12	0.79	2	ns
18	0.333	2	ns
25	0.241	2	ns
32	0.219	2	ns
40	0.534	2	ns

b) Stomatal conductance

Day	T-value	df	P-value
0	0.672	2	ns
3	0.534	2	ns
7	0.627	2	ns
9	0.617	2	ns
12	0.365	2	ns
18	0.643	2	ns
25	0.642	2	ns
32	0.025	2	ns
40	0.551	2	ns

c) Water Potential

Day	T-value	df	P-value
0	1.355	2	ns
3	0.355	2	ns
7	0.755	2	ns
9	0.205	2	ns
12	0.178	2	ns
18	0.078	2	ns
25	0.126	2	ns
32	0.318	2	ns
40	0.054	2	ns

Table S4: Full factorial ANOVAs (F statistic and *P* value) of biomass, root:shoot ratios, sucrose content and starch content in *Erica coccinea* seedlings for different forms (resprouter and seeder) under the different treatments (control and drought) for above and below ground material

Duncan's *post hoc* test was used to separate means (see Figures 5-7). Significance is indicated by an asterisk and highlighted in bold text

	Root:shoot	Sucrose	Starch
Treatment	15.49 (p<.001)*	84.65 (p<.001)*	7.73 (p=.008)*
Form	1.07 (p = .305)	97.58 (p<.001)*	0.30 (p=.587)
Allocation	NA	12.32 (p<.001)*	2.52 (p=.119)
Treatment*Form	0.58 (p = .449)	17.91 (p<.001)*	0.01 (p=.978)
Treatment*Allocation	NA	0.89 (p=.349)	4.65 (p=.036)*
Form*Allocation	NA	2.93 (p=.093)	4.77 (p=.034)*
Treat.*Form*Allocation	NA	0.60 (p=.441)	0.27 (p=.607)