

Supporting Information File 1

S1_File

Includes: S1 Table and S1-S3 Figures

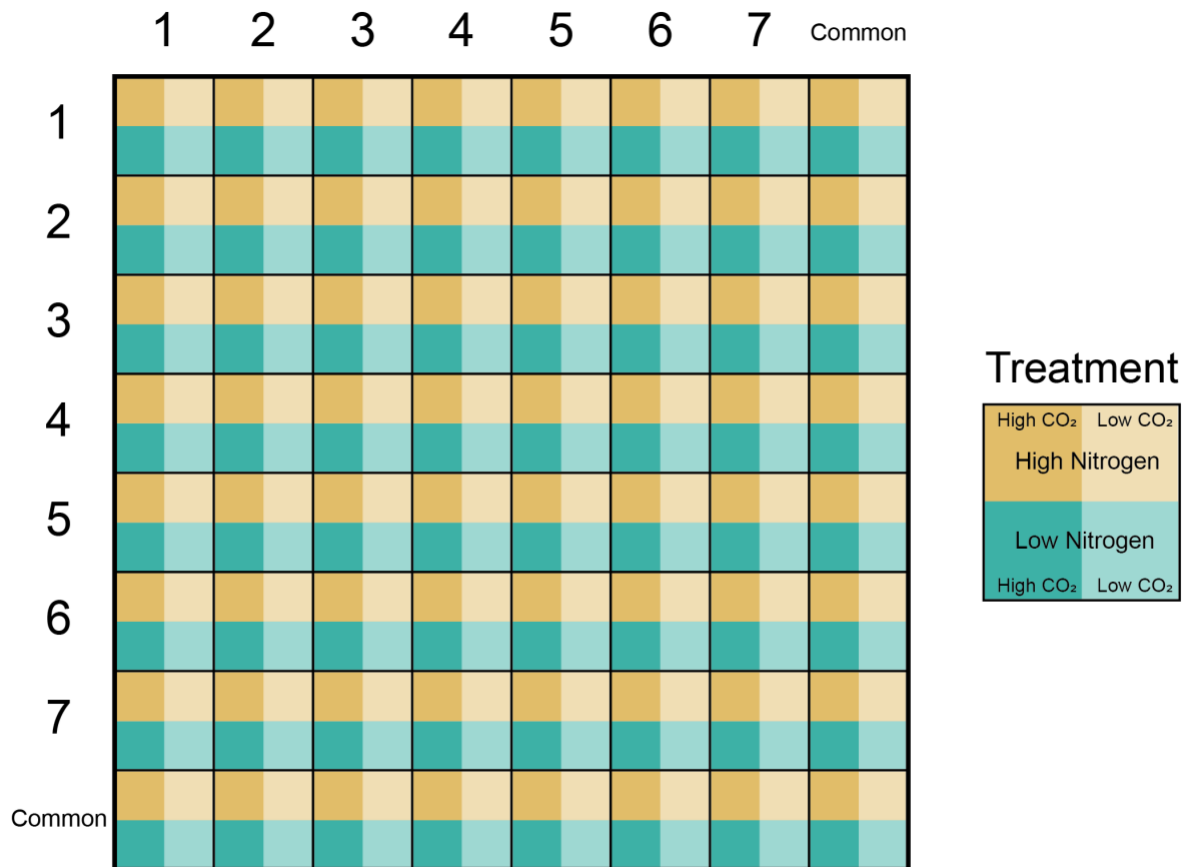
S1 Table. Categorization of 25 species of Tasmanian *Eucalyptus* by rarity level.

Species	Rarity
<i>E. perriniana</i>	1
<i>E. radiata</i>	1
<i>E. risdonii</i>	1
<i>E. urnigera</i>	2
<i>E. baberi</i>	3
<i>E. cordata</i>	3
<i>E. johnstonii</i>	3
<i>E. pulchella</i>	3
<i>E. sieberi</i>	3
<i>E. brookeriana</i>	4
<i>E. rubida</i>	4
<i>E. subcrenulata</i>	4
<i>E. tenuiramis</i>	5
<i>E. vernicosa</i>	5
<i>E. dalrypleana</i>	6
<i>E. gunnii</i>	6
<i>E. nitida</i>	6
<i>E. rodwayi</i>	6
<i>E. globulus</i>	7
<i>E. regnans</i>	7
<i>E. amygdalina</i>	Common
<i>E. delegatensis</i>	Common
<i>E. obliqua</i>	Common
<i>E. ovata</i>	Common
<i>E. viminalis</i>	Common

S1 Fig. Classification of rank ordered rarity levels using geographic range, habitat specificity, and local population size [2].

Geographic Range		Large		Small	
		Wide	Narrow	Wide	Narrow
Habitat Specificity					
Local Population Size					
	Large	Common	7	5	3
	Small	6	4	2	1

S2 Fig. Full factorial experimental design consisting of species mixtures varying in rarity under varying treatments of Nitrogen (N) fertilization and CO₂ enrichment. All possible rarity combinations were represented among four types of N fertilization and CO₂ enrichment. Treatments such as high N/high CO₂, high N/low CO₂, low N/high CO₂, and low N/low CO₂ were distributed equally among mixtures varying in rarity.



S3 Fig. Relationship between seedling biomass and mean adult height of Tasmanian *Eucalyptus* across seven rarity levels. The relationship between total seedling biomass in the common garden and mean adult height in natural populations is positively correlated across all rarity levels [38].

