are suitable for *B. juncea*.

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Seedling leaf structure of two Calophyllum species in relation to light environment

Seedlings leaves of the genus *Calophyllum* were compared in relation to variation in light. The species studied were *Calophyllum bracteatum* Thw., and *Calophyllum trapezifolium* Thw. Both are taxonomically closely related endemic species but differ in their ecological requirements. *Calophyllum bracteatum* grows up to 800 m altitude whereas *Calophyllum trapezifolium* grows above 1000m alt. Both species were collected and grown within two light treatments that had contrasting light quality and quantity (1) full sun PPFD 1200 µmol m-2 s-1, R: FR ratio 1.27 (2) shade PPFD 50 µmol m-2 s-1, R: FR ratio 0.46. Cuticle and palisade mesophyll cell layers, leaves, upper epidermis were all thicker for both species in full sun treatment. In the full sun condition where light intensity is high, promotes higher efficiency in water use and lower respiration. No significant difference in thickness of leaf blade, and upper epidermis were found between full sun and shade treatments in *Calophyllum trapezifolium*. *Calophyllum bracteatum* sun leaves had the thickest cuticle than *Calophyllum trapezifolium* sun leaves and the opposite occurred for leaf blade thickness. *Calophyllum trapezifolium* had significantly higher number of stomata per unit area in leaves that were exposed to full sun. Between species, *Calophyllum bracteatum* had higher stomata density and the lowest epidermis thickness in shade than *Calophyllum trapezifolium*. High stomata density is combined with small stomata and a small epidermis cells, and low stomata densities with large stomata and larger epidermis cells.