The effects of seed size and pericarp on seedling recruitment and biomass in Cryptocarya alba (Lauraceae) under two contrasting moisture regimes

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Establishment success of plants derived from large seeds has been proposed to be greater than that of those derived from smaller ones, particularly under unfavourable conditions of moisture. Therefore, the advantages conferred by large seeds in terms of seedling performance may be modulated by abiotic conditions. The effect of seed size on Cryptocarya alba seedling performance (as determined by seedling recruitment and seedling size) was evaluated under two contrasting rainfall regimes (wet and dry year regime), simulated in the laboratory. It was also determined whether the presence of a pericarp, which had been shown to reduce germination, decreases desiccation and if this counterbalances the greater recruitment of seeds without a pericarp, especially under unfavourable conditions of moisture. Large seeds had a greater probability of recruitment and their seedlings attained a greater biomass, independently of the amount of water applied. In the simulated wet year regime, seeds with a