

**POST-DISPERSAL SURVIVAL AND GERMINATION OF SEEDS OF
Pterocarpus marsupium AND *Elaeocarpus ganitrus***

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Pterocarpus marsupium (native) and *Elaeocarpus ganitrus* (exotic) are two tree species that produce a large number of fruits every season. However, the seed germination of these two species is poor or delayed. This study evaluated the survival and germination of seeds of the two species after dispersal. Fresh, healthy fruits filled with seeds at dispersal were collected. Seed germination (SG) of *P. marsupium* with and without mechanical scarification was tested under laboratory conditions (20 × 5 seeds per treatment). In *E. ganitrus*, germination of intact seeds and seeds exposed by breaking the endocarps was tested in distilled water and 500 ppm gibberellic acid (GA₃) (10 × 5 seeds per treatment). Data were recorded weekly for four weeks. Four replicates of 50 and 25 fruits of *P. marsupium* and *E. ganitrus*, respectively, were buried at two depths (0 and 3 cm) in plastic mesh containers filled with soil. Seedlings that emerged were recorded after three months, and surviving seeds were exhumed, and SG was tested. Initially, the seeds present per 100 fruits (SF₁₀₀) of *P. marsupium* and *E. ganitrus* were 73 and 100, respectively. Mechanical scarification increased SG of *P. marsupium* (93%) compared to non-scarified seeds (12%; $p < 0.05$), however, none of the *E. ganitrus* seeds were germinated. In the burial experiment, SF₁₀₀ of *P. marsupium* had declined to 24 (16 germinated after scarification) and six (five germinated after scarification; $p < 0.05$) at 0 and 3 cm depths, respectively producing < 20 seedlings per 100 fruits. In *E. ganitrus*, SF₁₀₀ was 88 at 0 cm, out of which 66 (75%) germinated in 500 ppm GA₃ after breaking the endocarp. At 3 cm depth, SF₁₀₀ was 86, of which 50 (58%) germinated in 500 ppm GA₃ after breaking the endocarp. The post dispersal survival of seeds was low in *P. marsupium* compared to *E. ganitrus* and was higher at the soil surface (0 cm depth).

Keywords: *Elaeocarpus ganitrus*, *Pterocarpus marsupium*, Seed burial, Seed germination, Seed survival