

Seed Traits and Germination in *Syzygium caryophyllatum* (L.) Alston: An Endangered Species of the Western Ghats

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Abstract: Syzygium caryophyllatum (L.) Alston is one of the ecologically important tree species of Western Ghats, a global biodiversity hotspot. According to the IUCN assessment, this species belonged to the 'Endangered' category. Present study was designed to assess the fruit and seed traits as well as germination pattern in *S. caryophyllatum*. Reproductive phenology observations revealed that flowering period spread over four months from March to June; while, overall fruiting period ranged between May to July. Individual fresh fruit weight ranged from 0.74 to 3.45 g with highly positive skewed distribution. Seed weight varied from 0.04 to 0.59 g with 83 per cent of seeds being represented in seed weight class of 0.04 to 0.34 g. Seed germination initiated after 13th day of sowing and overall germination success was 90 per cent in germination chamber @ 28-35°C temperature and 70-75% relative humidity. However, natural regeneration was very poor in the study area necessitating the need for further focused studies to understand factors that delimit the population build-up of the species.

Keywords: Syzygium caryophyllatum, Endangered species, Seed traits, Seed germination, Natural regeneration