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Early Growth Stages of the Rare *Acridocarpus orientalis* in the UAE—A First Step towards Conservation

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ABSTRACT

The seed germination and seedling establishment of the rare *Acridocarpus orientalis* were investigated to understand its requirements for further seedlings establishment in the United Arab Emirates (UAE). It is an important first step in order to try to conserve the species and prevent its disappearance. The experiments were carried out in a greenhouse and in a laboratory under a temperature of about $25^{\circ}\text{C} \pm 4^{\circ}\text{C}$. Seeds were soaked in water or kept in cold conditions. A control treatment was also included. Only a total of 9 seeds emerged during a period that exceeded eight months. Percent germination in the laboratory experiment reached a maximum of 32%, 75 days into the trial. The rate of seed mortality was 64%. It may be a problem of acclimation to the greenhouse environment. The results of this study showed that *A. orientalis* seeds were not dormant. About 32% of seeds germinated and all others were viable. Soaking seeds in water proved to be the best treatment for *A. orientalis* to emerge. Further investigations of the species germination and establishment are needed in order to improve our chances of protecting *A. orientalis* in the wild.

KEYWORDS

Qafas; Seed Germination; Seed Mortality

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