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Habitat restoration initiative for the threatened species *Juniperus seravschanica* in Al Hajar mountains of Oman

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The Al Hajar mountains of Oman serve as important refuges for large numbers of endemic and endangered flora species with small geographic distributions, making them represent global biodiversity hotspots. These montane habitats, primarily located at over 1,500 m altitude, provide shelter for approximately 25% of the native plants of Oman. *Juniperus seravschanica*, the only conifer species in Oman, is a keystone species within this mountain range. However, due to numerous interacting stressors, persistent decline and poor regeneration have been observed in its population, especially at lower elevations. An inaugural restoration initiative was launched by the Oman Botanic Garden (OBG) in 2014, with the aim of identifying the main causes that have contributed to the observed degradation of *Juniperus*. In this research, seeds and juvenile seedlings of juniper, aged two and five years, were planted at three distinct elevations: 2200 m (low), 2300 m (mid), and 2500 m (high). Seedlings were maintained under three different irrigation regimes. The findings demonstrated that transplanting young trees prove more successful than seed sowing in re-establishing plants in the wild. However, the age of transplant had an effect on establishment with seedlings aged five years showing greater survival than those aged two years. Nevertheless, the survival rate of younger plants showed improvement at higher altitudes when compared to intermediate and low elevations. Furthermore, plant establishment was greatly influenced by both drought and temperature, as well as their interaction. The study provides significant insights that can guide the development of effective conservation programs and have wider implications for the protection of native and endangered flora in this area.