

Outcrossing increases infection success in the holoparasitic mistletoe *Tristerix aphyllus* (Loranthaceae)

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Most studies on the fitness advantage of outbreeding in host-parasite systems have been assessed from the host rather than the parasite perspective. Here, we performed experimental pollination treatments to evaluate the consequences of outbreeding on fitness-related traits in the holoparasitic mistletoe *Tristerix aphyllus* in a 2-year field study. Results indicate that self-pollinated plants had a lower fruit production than outcrossed plants (20.4% and 29.5% reduction in 2002 and 2003, respectively), and resulting inbred fruits were smaller than outcrossed fruits in both years. No effect was detected for seed mass. The percentage of germination of inbred seeds was 15.1% and 6.0% lower than outcrossed seeds in 2002 and 2003, respectively. Inbred seedlings had shorter radicles, which translated to a 71.6% and 60.0% reduction in infection success compared with outcrossed plants in 2002 and 2003, respectively. Overall, our results revealed significant inbreeding depression on almost every