

Seed dispersers as disease vectors: Bird transmission of mistletoe seeds to plant hosts

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The relationship between mistletoes and birds has been studied from the perspectives of mutualism and seed dispersal. Here, we emphasize the role that avian dispersers play as agents of mistletoe seed transmission to plant hosts. We describe the patterns of transmission of the seeds of *Tristerix aphyllus*, an endophytic Chilean mistletoe, on two of its columnar cacti hosts (*Eulychnia acida* and *Echinopsis skottsbergii*) by the Chilean Mockingbird *Mimus thenca*. In north-central Chile, these cacti grow in relatively discrete subpopulations on north-facing slopes. We measured variation in seed transmission within 10 subpopulations varying in species composition, host density, parasite density, parasite prevalence (defined as the percentage of hosts infested in a given population), and disperser abundance. Seed transmission was independent of species, but was strongly dependent on prior parasitism. Parasitized individuals received seeds much more frequently than expected from their relative a