

ECOLOGICAL ROLE OF FRUGIVOROUS BATS AS SEED DISPERSERS IN THE TROPICAL PLAINS.

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Abstract

Seed dispersal of tropical almond, *Terminalia catappa* by the short-nosed fruit bat *Cynopterus sphinx*, was investigated in the plains of Tirunelveli, Tamil Nadu, South India. While foraging, the bats remove fruits, carry them to nearby night-feeding tree roosts, chew pericarp, extract juices and discard compressed fibres and seeds. Thus, the seeds are dispersed while the bats are in transit between fruit trees and night feeding roosts. An experiment was conducted to demonstrate the germination success of bat-dispersed almond seeds. The dispersed seeds collected beneath the feeding roosts, were categorised as pericarp fully chewed (PFC), pericarp partially chewed (PPC), and pericarp unchewed (PUC), of which the latter served as a control. It is evident that the germination rates of PFC seeds were 68 %, PPC seeds 60% and control PUC seeds 40%. Moreover, the mean germination period of PFC seeds was 28.4 days (± 3.13 ; $n=25$), PPC 29.8 days (± 3.97 ; $n=10$) and control PUC 49.6 days (± 4.66 ; $n=20$). Seed germination occurred significantly earlier in bat-chewed fruits of *T. catappa* when compared to control seeds ($t = -7.21$; p

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