

Cynopterus sphinx facilitates the effective dispersal of fig seeds in tropical ecosystem

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Seed dispersal is an important role played by fruit bats in maintaining and restoring plant communities. Our observations on the tropical tree *Ficus benghalensis* (Moraceae) indicate that the foraging pattern influences the effectiveness of seed transportation. Fruits are of red in colour and weigh about 3.94 ± 0.12 g with size around 15.45 ± 0.53 mm ($n = 10$). Along with the observations on foraging pattern we have studied the fruit removal strategies of sympatric fruit bats namely *Pteropus giganteus* and *Cynopterus sphinx*. The peak foraging hour of *P. giganteus* was observed between 20:00 and 21:00 h, whereas in *C. sphinx* peak was between 19:00 and 20:00 h ($n = 5$). This highlights the temporal variation existing between the sympatric bats in the foraging ground. In addition, *P. giganteus* was observed in spending longer time (8.13 ± 0.61 min, $n = 15$) in the tree and consumed fruits *in situ* from the upper canopy layer; on contrary, *C. sphinx* removed the fruits either by landing on the branch for a while or removed the fruit by hovering flight itself (4.6 ± 0.30 s, $n = 15$) from the understory branches. Apart from bats, during the day time other frugivorous species such as birds (e.g. *Corvus splendens*, *Acridotheres tristis*, *Eudynamis scolopaceus* and *Pycnonotus cafer*) and squirrels (*Funambulus palmarum*) were observed to consume the fruits *in situ*. Hence *C. sphinx* was the only species among the frugivorous visitors exhibited *ex situ* feeding and have carried away the fruit from the vicinity of the parent tree, which further substantiate our finding that *C. sphinx* facilitates effective dispersal of fig seeds in the tropical ecosystem.

KEY WORDS:

Ficus benghalensis, fruit bats, birds, seed dispersal