

## Abstract

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### Seed Dispersal and Predation in Primary Forest and Gap on Doi Suthep

The study was carried out to determine the relative importance of seed dispersal and seed predation, compared with other site environmental conditions, as factors limiting some tree species from colonising gaps.

Two sites, primary disturbed forest and gap were selected on Doi Suthep-Pui National Park. Seed traps were used to determine which species are able to disperse their fruits/seeds from forest into gaps. Seed predation was assessed by using three selected species and live trapping of potential mammalian seed predators were done.

The results from the seed traps showed that small, flat, light-weight and usually winged fruits/seeds could disperse farther into the gap, while bigger ones could disperse only a few metres from the parent trees. Seventy tree species could disperse their seeds into traps of which 21 were found only in the gap and 17 only in the forest, while the rest were found in both sites. The species diversity of fruits/seeds declined with distance from forest edge and was subject to high seasonal variability. This knowledge could possibly be used to choose tree species which cannot grow naturally because of the lack of dispersion and different fruiting phenologies for forest regeneration in different places and seasons. The rate of seed predation was determined for three tree species *Engelhardia spicata* Lechen. ex Bl. var. *spicata* (Juglandaceae), *Styrax benzoides* Craib (Styracaceae), and *Castanopsis acuminatissima* (Bl.) A . DC. (Fagaceae). Seed predation rate in the gap and forest did not differ significantly ( $p > 0.05$ ). Environmental conditions seemed to be more important than seed predation in limiting forest regeneration. Live trapping of potential fruit/seed predators showed a much higher density of small mammals in the gap than in the forest but the species found in both sites were not very different. Species common in both forest and gap were *Rattus rattus*, *R. surifer*, and *R. bukit*, but *Mus cookii* was found only in the gap.