

Diet, habitat use, and seed dispersal by a pigtail macaque (*Macaca nemestrina leonina*) troop in Khao Yai National Park (Thailand)

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While studying the influence of human proximity on the ecology of pigtail macaques, a species not well documented in continental Thailand, we collected data on ranging and foraging behaviours of a troop of *Macaca nemestrina leonina* living in the surroundings of Khao Yai National park tourist centre. We present here data suggesting a role as seed dispersers for the pigtailed macaques, role which has not been considered yet when analysing the importance of the frugivorous community in forest regeneration. Such a role might be however expected based on the highly frugivorous diet of the macaques, the presence of cheek pouches, and the relatively long distance they travel daily.

The studied troop counts about 40 individuals, with 3 adult males for 9 adult females, and occupies a 100 ha home range with sleeping sites close to the tourist facilities. Macaques spent about 30% of their days in primary forests, and more than 60 percent in secondary forest and open areas. They consume a certain proportion of human food (6.4%), but spend most time foraging for wild food in the surrounding forest. Fruits count for an important part of their diet (76%) and, indeed, the faeces analysis reveals the presence of a high number of seeds, which size ranges up to above 15mm. Their viability was assessed using the cut-test and Tetrazolium immersion, showing a high percentage of viable seeds in the samples. Three series of seeds (defecated, spat, and control seeds) placed in germination boxes reached a high germination rate, with no uniform significant differences between defecated, spat and control seeds. Seeds without pulp, a frequent case when macaques reject them after transport and processing, seem to be more likely to germinate than seeds rejected with their pulp directly under the parent tree. These results suggest altogether that pigtail macaques are potential seed dispersers, an important factor in regard of their regular use of degraded habitat zones.