

Thesis Title Survey for Semi-Tame Colonies of Macaques
 in Thailand

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ABSTRACT

Non-human primates have not been thoroughly surveyed in most parts of Thailand. Most detailed information on presence and relative abundance has come mainly from protected areas such as national parks and wildlife sanctuaries, and even this information is sparse. Increasing human population has caused severe habitat destruction and caused diminished food supply and living space for primates. The wildlife, even though protected by the Wildlife Conservation Act of 1960, is killed everywhere except for small population groups on Buddhist temple grounds.

A survey of semi-tame colonies of macaques near human habitations was initiated to give a broader picture of their distribution outside of forest conservation areas in Thailand. The survey was carried out not only to determine population size and age-sex composition, but also to obtain information having conservation implications such as

attitudes of local people, availability of natural cover and ranging behavior. Eight study sites were selected for brief study of the macaques' ecology and behavior.

A total 54 sites were visited. There were 44 free-ranging colonies, two sites with captive animals only, and five sites with both free-ranging and captive monkeys. The age-sex composition of the monkeys was observed in 36 sites visited. At least 2,728 macaques were observed at these sites, including 2,538 *Macaca fascicularis* (33 colonies), 103 *M. mulatta* (one colony), 56 *M. assamensis* (one colony), and 31 *M. arctoides* (one colony).

Twenty-one of the sites visited had colonies now completely isolated from other populations of the same species. These colonies therefore could be at risk of extinction over the long term from demographic fluctuation, inbreeding and local habitat loss. Assuming that each colony is a separate population, the effective population size (N_e) of each was calculated. The primates at 14 sites are categorized as critical ($N_e < 50$) and those at the remaining seven sites are categorized as endangered ($N_e < 500$).

A survey of peoples' attitudes towards the monkeys revealed that people at 18 of the 36 sites visited were indifferent, at 17 sites tolerant, and only at one site intolerant. Most of the monkeys (19 sites) received some provisioning from visitors. Those at six sites were almost fully dependent on provisioning, and eleven sites were occasionally provisioned. Overall, the monkeys looked

healthy (without hair loss), three sites had obese monkeys, and two sites had undernourished monkeys.

Overall, the long-tailed monkeys spent an average of 36.8% of their time during the day resting, followed by travel (24.3%) and feeding (20.6%). Play activity was high in juveniles and infants. Overall, aggressive activity was low or absent. These monkeys used natural substratum and vegetation more than artificial substratum. Those monkeys living at tourist sites fed more on provisioned food. At the eight study sites, the monkeys' home range varied from five to 94 ha.

To conserve the monkeys or other wildlife, natural habitat must be protected because it provides living space, food sources and refuges. Captive animals should not be kept in houses, private zoos, or even in temples because the chances of survival and reproduction are very small. Provisioning of free-ranging colonies is not necessary where natural habitat is available. Provisioning causes the monkeys become less active, more aggressive towards human, and less healthy. In very limited areas, provisioning with fruits and vegetables can help the monkeys survive but people should avoid giving them high carbohydrate food. Limiting of provisioning areas in tourist sites and properly sealing of rubbish bins can prevent diseases from being transmitted between monkeys and humans.