The banded leaf monkeys (*Presbytis femoralis*) are the largest extant non-human primates in Singapore and are acutely threatened with local extinction. And yet, relatively little is known about the population ecology of this highly elusive species, which has greatly impeded conservation efforts. We conducted a two-year field research to study the population size, distribution, diet and behavior of the leaf monkeys in their last remaining habitat in the lowland swamp forests. Some significant results were found. Contrary to a previous study in 1994 which reported only one group of 10 monkeys, we counted at least 40 individuals from six groups, ranging from two to 14 individuals per group. The larger groups were observed to exhibit fission-fusion. Approximately five infants were born in 2009, and there appears to be seasonal reproduction. In addition, we reported the first feeding data of the monkeys in Singapore including at least 12 species of plants, half of which are either locally threatened or thought to be extinct. Even though current population size is much more than expected with reproducing individuals, the groups are distributed in forest fragments with constant pressure from urban development and from inbreeding. In order to elucidate the population limiting factors of the banded leaf monkeys in Singapore, we aim to further the habitat phenology study and genetic analysis and we discuss these results in relation to conservation implications.

Keywords: Asian, colobines, ecology, conservation.