

Daily feeding rhythm in proboscis monkeys: A preliminary comparison with other non-human primates

Abstract

In non-human primates, the daily feeding rhythm, i.e., temporal fluctuation in feeding activity across the day, has been described but has rarely received much analytical interpretation, though it may play a crucial part in understanding the adaptive significance of primate foraging strategies. This study is the first to describe the detailed daily feeding rhythm in proboscis monkeys (*Nasalis larvatus*) based on data collected from both riverbank and inland habitats. From May 2005 to May 2006, data on feeding behavior in a group of proboscis monkeys consisting of an alpha-male, six adult females and immatures was collected via continuous focal animal sampling technique in a forest along the Menanggul River, Sabah, Malaysia. In both the male and females, the highest peak of feeding activity was in the late afternoon at 15:00-17:00, i.e., shortly before sleeping. The differences in the feeding rhythm among the seasons appeared to reflect the time spent eating fruit and/or the availability of fruit; clearer feeding peaks were detected when the monkeys spent a relevant amount of time eating fruit, but no clear peak was detected when fruit eating was less frequent. The daily feeding rhythm was not strongly influenced by daily temperature fluctuations. When comparing the daily feeding rhythm of proboscis monkeys to that of other primates, one of the most common temporal patterns detected across primates was a feeding peak in the late afternoon, although it was impossible to demonstrate this statistically because of methodological differences among studies. © 2014 Japan Monkey Centre and Springer Japan.