

Riverine refuging by proboscis monkeys (*Nasalis larvatus*) and sympatric primates: Implications for adaptive benefits of the riverine habitat

Abstract

Riverine refuging by non-human primates, with focus on proboscis monkeys, was studied in a forest along the Menanggul River, previous term Sabah, Malaysian next term from May 2005 to 2006. The results of the primate census indicated that not only proboscis monkeys but also sympatric primates inhabiting the study site preferred to utilize the riverine habitat for night-time sleeping, though the frequency of riverine usage was different among these sympatric primates. Four predation-related events in the study site and two additional predation reports at other study sites involving clouded leopards suggest a relatively high predation pressure in proboscis monkeys relative to other sympatric primates. Riverine refuging, which represents a strategy of long-range visibility, may provide non-human primates including proboscis monkeys with the common benefit of an effective means of predation avoidance. In addition, a one-male group of proboscis monkeys was studied to clarify the effects of food availability and air temperature on riverine refuging. Proboscis monkeys spent more time in the inland habitat, though the food availability was not much different between riverine and inland habitats, indicating that food availability is not a fundamental factor in their preference for riverine habitat. Air temperature only had a small effect on their preference for the riverine habitat. However, to clarify the reasons why riverine refuging is more common in proboscis monkeys than in sympatric primates, further investigation is needed.