

ECOLOGICAL AND BEHAVIORAL ADAPTATIONS OF GOLDEN SNUB-NOSED MONKEYS IN TEMPERATE FOREST: DIET AND HOME RANGE USE

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In order to adapt to and survive in variable environments, animals must adopt different behavioral strategies. Golden snub-nosed monkeys (*Rhinopithecus roxellana*) live in the northernmost regions of any colobine monkeys: the temperate mountain forests of Central China. What are this leaf eater monkey's special strategies to survive in this seasonal area? We explored two important ecological factors: diet and range use. We followed a wild troop of *R. roxellana* for 2 years and recorded their food items and daily group movement patterns, to estimate their diet, home range size, and habitat utilization. We found that they have a wide range of food items, consuming over 84 species of trees and shrubs and two lichen species. They adapted their diet to the phenological cycles of trees, in terms of budding, leafing, fruiting, and leaf-drop. The size and core area of their home range varied seasonally with changes in food composition and distribution. This species can inhabit temperate regions where the availability of food resources is likely to show pronounced seasonal fluctuation. Thus, golden snub-nosed monkeys show special behavioral strategies in their diet and range use to adapt to this temperate mountain forests. From an ecological perspective, the abundance and distribution of food resources may be the most important determinant of ranging behavior among primate species.

Keywords: *Rhinopithecus roxellana*, temperate forest, diet, ranging