

DOES FOOD AGGREGATION AFFECT FINDER'S SHARE AND INDIVIDUAL FORAGING STRATEGIES IN A FREE-RANGING CAPUCHIN MONKEY GROUP?

J.C. Bicca-Marques, D.F. Gomes

Laboratório de Primatologia, Faculdade de Biociências, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, RS, Brazil

Presenter's Email: jcbicca@pucrs.br

Social foraging theory predicts that the size and distribution of food patches influence the finder's advantage of group living individuals, thereby affecting the profitability of variable searching investments. According to the producer-scrouter model, finding a patch is more critical when resources are distributed in small than in large clumps. In this research we analyzed the foraging behavior of eight free-ranging black-horned capuchin monkeys, *Cebus nigritus* (one adult male, five adult females, one immature male and one immature female), in south Brazil to assess the influence of food aggregation on the finder's share and the individual foraging strategies. We manipulated the distribution of a constant amount of food (eight bananas) within an artificial feeding station composed of eight feeding platforms simulating a dispersed (all platforms baited with one banana) and a clumped (two platforms baited with four bananas each) condition. The study group visited the feeding station 34 times over the course of 50 days in the dispersed experiment performing 260 platform visits and 38 times over 101 days in the clumped experiment totaling 269 platform visits. Mean finder's share was higher when food was dispersed in small patches (0.9 vs. 0.6; $P < 0.0001$), but a greater proportion of finders did not eat under these circumstances (19/193) when compared with the clumped condition (1/62; $P = 0.0159$). Searching investment differed among individuals in both experiments ($P < 0.0001$). Whereas overall individual searching investment changed between experiments ($P = 0.0088$), the proportion of rewarded platforms discovered by each group member remained constant ($P = 0.491$). Funding: Brazilian National Research Council (CNPq).

Keywords: Social foraging, Producer, Scrounger, *Cebus nigritus*