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CAPUCHIN MONKEYS (*CEBUS LIBIDINOSUS*) NAVIGATION SYSTEM IN A SEMI-ARID HABITAT, BOA VISTA, PIAUÍ – BRAZIL

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Studies on primate spatial cognition are revealing that many species navigate using a system of habitual routes, or topological maps, while chimpanzees and tufted capuchin monkeys living in forests navigate using an Euclidian map. Habitual use of paths or network routes has been described for primates in a majority of studies, and also in a variety of environments. Network route is considered an egocentric mechanism of orientation. We have suggested that the orientation system may vary according to environmental features, particularly topography and vegetation. We analyzed the mechanisms of navigation used by one wild group of tufted capuchins at Fazenda Boa Vista, Gilbués, an area of Cerrado/Caatinga located in Piauí State (Brazil), during four consecutive years. The group was followed from dawn to dusk for a total of 116 days. All of the 7,088 points collected (with GPS device) were plotted using ArcView 9.3 to build daily routes. The routes were superimposed month by month, resulting in the route network system used by the studied group. We ran the buffer analyses at ArcView, and results suggest that capuchin monkeys at Boa Vista navigate using a topological map, an egocentric mechanism of orientation, differing from the orientation system of capuchins in the Atlantic Forest. *Cebus libidinosus* showed a pattern of navigation based on network route, an egocentric mechanism implied to different species of primates. The results support the hypothesis that environmental features may play a significant role in the orientation system. This study was funded by FAPESP.

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