Capuchin monkeys are occupying Caatinga areas in northeastern Brazil, representing the extreme dry and hot environment of this genus distribution. We surveyed a total of 17 Caatinga areas during a 36 months period (Jan 2007 to Dec 2009). Groups of *Cebus libidinosus* were found in nine areas and one group of *C. flavius* (or hybrid) in one. This is the northeastern most limit of *C. flavius*, a species typical from Atlantic forest, and an indication that Caatinga formed during Pleistocene after retraction of Amazonian forest. Two areas were intensively studied during 12 months (Jan to Dec 2009): 225,40 hectares of arboreal Caatinga (trees of 6m high) and 361,18 hectares of arbustive Caatinga (trees up to 3m high) both with deciduous leaves. Animals were not habituated but *ad libitum* encounters indicate that groups’ size did not differ between areas (mean = 20 animals). Large number of nut cracking tool use sites were found in both areas (up to 613 in a single month), and four different nuts at different maturation stages are cracked. Total exploration areas were larger at arbustive (163,58ha) than at arboreal Caatinga (42,89ha). Our data confirm Cebus dietary and behavioral flexibility, and environmental differences account for differences found in frequency of tool use.

Keywords: Capuchin, Cebus, Caatinga, Foraging, Tool use