

ABSTRACT

Vision has traditionally been viewed as a major sensory modality in primates, especially in "higher" anthropoids and apes. In turn, the importance of olfaction has been downplayed, and primates were tagged as "microsmatic" rather than "macrosmatic". Consequently, few attempts have been made to collect data regarding olfaction among them. In recent decades these views have started to change. First, many social functions of olfaction were identified, and later on the very notion of "physiologically microsmatic primates" was revisited. Yet to this day, data regarding the roles of olfaction in primate foraging ecology is scarce, and is, despite modern understandings of primate chemosensory discriminatory abilities, still rather anecdotal. Almost no comparative data address the place of olfaction in the foraging domain. Here, an experiment is reported upon that compared the reaction of five anthropoid species to several olfactory stimuli of several categories. Species examined were of two main lineages (great-apes and old-world monkeys), and roughly represented two separate dietary modalities (frugivorous and folivorous). Though preliminary, the results demonstrate the interplay between two lines of divergence in the evolution of olfaction in primate foraging ecology: phylogenetic and ecological. On the first, great apes scored lower than old-world monkeys, in accordance with the supposed reduction in olfaction amongst them. On the second, frugivorous-omnivorous species scored slightly higher, with emphasis on relevant fruity odours among frugivorous monkeys. Divergence between phylogenetic groups was stronger than between dietary ones. It is thus suggested that in the interplay between genetic predispositions and ecological pressures which shaped olfaction in each lineage, the first seems to be stronger than the latter.