**How does the flower density within different regions of a balsa tree (Ochroma pyramidale) affect the rate and timing of kinkajou (Potos flavus) visits to those regions?**

Many angiosperms rely on animals for reproduction, developing potentially costly strategies to attract the animals most likely to successfully disperse their pollen.

A very interesting example of this is the fast growing, neotropical balsa tree (*Ochroma pyramidale*) which has large flowers that each produce up to 25.5 ml [Kays et al, 2012] (enough to fill a ping pong ball!) of costly nectar during one night. This nectar is thought to specifically attract mammals [Kays et al, 2012]. Due to their large size, memory, and capacity for learning, mammals are uniquely capable of directly dispersing balsa pollen to conspecifics over large distances. Long range pollen dispersal is important for balsa because stands of these trees grow in disturbed regions that are often separated by large distances.   
One of the frequent visitors of balsa are kinkajous which use their long tongue to drink the nectar, leaving the flower intact and covering their heads in pollen [Kays et al, 2012]. This allows subsequent visitors and is important because it diversifies the distribution of pollen[cit].

Thus, how kinkajous find balsa flowers and move between balsa trees helps us to understand how both organisms will be distributed in their ecological communities. [cit]

Starting at a small scale we want to understand how balsa flower spatio-temporal distribution affects kinkajou behavior. By investigating the relationship between flower density within different regions of a balsa tree and the rate and timing in which kinkajous visit those regions, we can learn more about the kinkajou’s ability to locate balsa flowers.

Kinkajous are an important part of diversity in the community in the balsa tree and are the focus of this study. The kinkajou (*Potos flavus)* is an arboreal, nocturnal and fruit eating species of the order *Carnivora*. Kinkajous are considered as mainly solitary animals that regularly interact in stable social groups [Kays et al, 2001]. A social group often consists of two adult males, one adult female, one sub-adult and one juvenile [Kays et al, 2001]. Most of the time kinkajous travel and feed alone. Social interaction happens during group feeding in big trees or at denning sites [Kays et al, 2001]. As balsa trees are quite big, they pose an area where such social interactions can be observed. They eat mainly ripe fruit but feeding on flowers makes up to 8-9 % of their feeding time [Kays, 1999]. Kinkajous handle flowers from which only nectar is eaten very carefully [Kays, 1999], this allows flowers to be revisited. When feeding on flowers kinkajous cover their heads in pollen. Balsa trees require cross-pollination and kinkajous have big enough home ranges to make them possible pollinators [Kays, 2012].