

Project update: December 2023

We collected information about crop feeding behaviour by white-faced capuchin (*Cebus imitator*) using camera traps. We deployed cameras in a focal maize plantation during 67 days between July and August 2023. We deliberately placed four unbaited camera traps along the forest-crop edge. We chose the focal points based on farmers' knowledge about the entrance points used by white-faced capuchins and other considerations such as the existence of branches on the ground and vegetation at heights of ≥ 10 m that facilitate the entry of animals.

All camera traps operated simultaneously 24 hours per day during the stage of maize cob formation (sampling effort: 268 camera-trap days). The camera traps recorded 14 independent events of white-faced capuchins (Figure 1). White-faced capuchins were recorded in maize fields as early as 8:20 h and as late as 17:49 h.



Figure 1. An adult white-faced capuchin extracting a maize cob from the maize plantation, July 2023.

Pilot study of the nutritional content of figs and maize

We collected samples of fruits from wine palms (*Attalea butyracea*) and fig trees (*Ficus insipida*) during phenological monitoring carried out between May 2022 and July 2023 (Figure 2). Wine palm samples were collected from two specific palms where white-faced monkeys had previously been observed feeding. In the case of fig trees, fruits were collected from trees that are located within the home range of our focal capuchin group.



Figure 2. Recollection of fruits of wine palms (left) and fig trees (right), May 2023.

We weighed all samples as soon as possible after collection (wet weight) and dried them at 65°C in an oven for 72 hr to calculate dry matter before nutritional analyses (Figure 3). Nutritional analyses were performed at the *Universidad de Panamá* Soil

Laboratory – LABSA, and the IDIAP Bromatology Laboratory, both located in the Chiriquí province.



Figure 3. Samples drying in an oven before nutritional analyses, May 2023.

From the nutritional analyses, we obtained the content of calcium (Ca), phosphorus (P), crude protein (CP), neutral detergent fibre (NDF), acid detergent fibre (ADF),

and metabolisable energy (ME). The results suggest that figs and wine palm fruits have similar levels of digestibility. Regarding the percentage of minerals, to date, we have obtained that wine palm fruits are not deficient in calcium, being these values within the nutritional requirements for non-human primates recommended by the US National Research Council.

Other activities

We deployed one camera in a focal wine palm (*Attalea butyracea*) between October and November 2022. The camera traps recorded eight independent events of white-faced capuchins (Figure 4). White-faced capuchins were recorded feeding wine palms fruits as early as 7:32 h and as late as 17:04 h.



Figure 4. An adult white-faced capuchin feeding wine palm fruit, November 2022.