

# FEEDING BEHAVIOUR OF *Propithecus coquereli* AND MEDICINAL PRACTICES OF HUMAN IN ANJAJAVY



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## INTRODUCTION:

The forest is a source of life not only for animals, but also for humans.

Plants of the Anjajavy Private Reserve provide:

- **food for *Propithecus coquereli*** (Coquerel's sifaka) via primary metabolites and other nutrients.
- **medications for local people** via secondary compounds and other ingredients with therapeutic values.

Most plants have both nutritional and medicinal properties. Which begs the question,

### WHAT MEDICINAL COMPOUNDS ARE COQUEREL'S SIFAKA CONSUMING, AND WHAT EFFECTS DO THESE HAVE?

This study aims to understand the **plants** consumed by Coquerel's sifaka at Anjajavy, in addition to providing insights into what **medicinal benefits** they may reap from their diets. **1** I collected both feeding behavior data with sifaka, and **2** interviewed local people in order to understand the medicinal plants that the sifaka may be consuming. **3** I also conducted bibliographic research in order to know the plants that are scientifically proven to be medicinal.

## METHODS:

Data were collected on three individuals Coquerel's sifaka in **November and December of 2017** in the three areas of **ANJAJAVY PRIVATE RESERVE** (Allée des rois, Oasis, and Enclos du Tsingy).

The sifaka were individually identifiable (**abdominal tumor, alopecia in the tail and injuries in the right ear**) and included three adult females from three distinct social groups.

- Each sifaka was observed over a **ten-day period for a total of 240 hours** of observation, and the plant species and part consumed were noted.
- 2** Additionally, **30 local people** were interviewed in three different Fokontany: Anjajavy, Antsangabe, and Amboaboaka. Each person was given a list of the sifaka foods and asked if the plant had medicinal properties.
- 3** These same plants have been the subject of **literature research** about their medicinal properties.



Private Reserve of Anjajavy

*Propithecus coquereli*



## RESULTS:

- 1** In total **47 plant species** were consumed by the three individual sifaka, although each individual only consumed between **22-28 species**. The most commonly consumed plant part as **young leaves**. Two of the three focal individuals also **lick tsingy**.

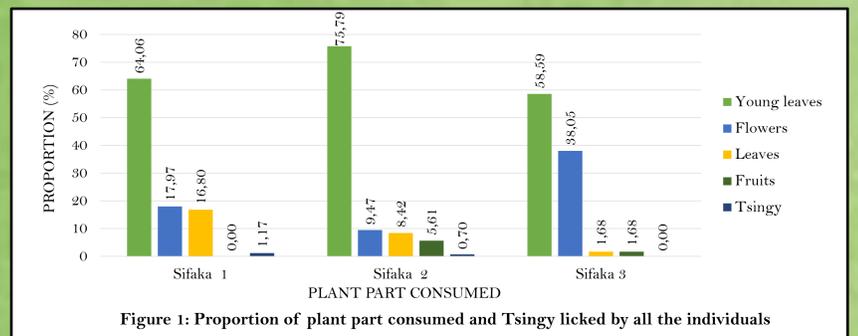


Figure 1: Proportion of plant part consumed and Tsingy licked by all the individuals

- 2** Of the foods consumed by sifaka, local people note that **26/47 (55,3%) have therapeutic value**. For the preparation of medicinal remedies, leaves are the plants part the most used. **Decoction** is the preparation method the most used, **Oral** is the most common way of administration. Furthermore, **37%** of the remedies are indicated for treating **digestives diseases**.

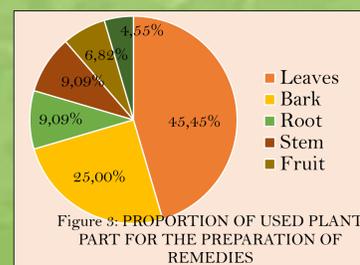


Figure 3: PROPORTION OF USED PLANT PART FOR THE PREPARATION OF REMEDIES

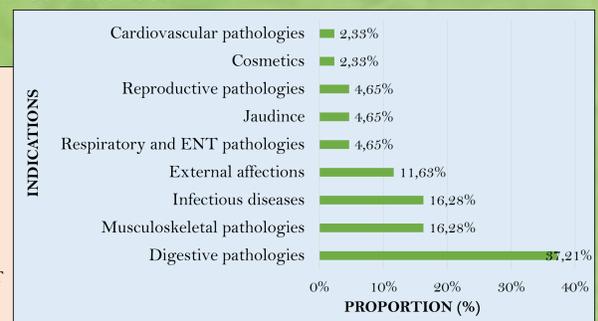


Figure 2: PROPORTION OF PLANTS ACCORDING TO THEIR INDICATIONS

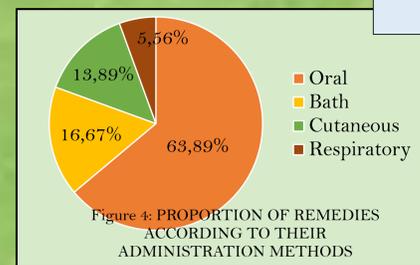


Figure 4: PROPORTION OF REMEDIES ACCORDING TO THEIR ADMINISTRATION METHODS

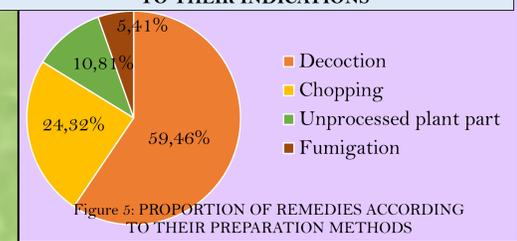


Figure 5: PROPORTION OF REMEDIES ACCORDING TO THEIR PREPARATION METHODS

- 3** At the resulting of the bibliographical research, **34/47 species (72,34%)** of plants consumed by sifaka have therapeutic properties.

Tableau 1: Medicinal plants consumed by Coquerel's sifaka

SCIENTIFIC NAME	LOCAL NAME	INDICATION(S)	USED PART(S)	MODE(S) OF PREPARATION
<i>Cryptostegia madagascariensis</i> Bojer ex Decne.	Lombiro	Scabies, Wounds	Latex, Root	Chopping
<i>Thespesia populnea</i> (L.) Sol. ex Corrêa	Voaro	High blood pressure, diabetes, dysentery, antimicrobial	All plant parts	Juice, Decoction
<i>Salvadora angustifolia</i> Turrill	Jajavy	Milk production, painful periods, fibroids, cough, tiredness	All plant parts	Decoction, Chopping

## CONCLUSION

Of the plants consumed by sifaka, **55,3%** were noted to have medicinal properties by local people, and **72,34%** were found as being medicinal in the literature. This information has made it possible to know that the sifaka have a diet composed of medicinal plants in their natural habitat. **These plants may have beneficial effects on their health** depending on their properties, amounts consumed, and health of the individuals.

This information could be used to

- **INCREASE WELL-BEING** for sifaka in captivity, by way of providing them with plants food that are consumed by their wild counterparts which have medicinal properties. Additionally, supplemental tsingy may be beneficial to the overall health of captive sifaka.
- **DISCOVER AND FURTHER EXPLORE** the medicinal properties of Malagasy plants for the treatment of diseases in both sifaka and humans.

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