

1. Who are they?

White-faced sakis are New World frugivorous seed predator monkeys, with an adapted dental morphology and gut physiology that allows them to exploit hard pericarp fruit and young seeds.

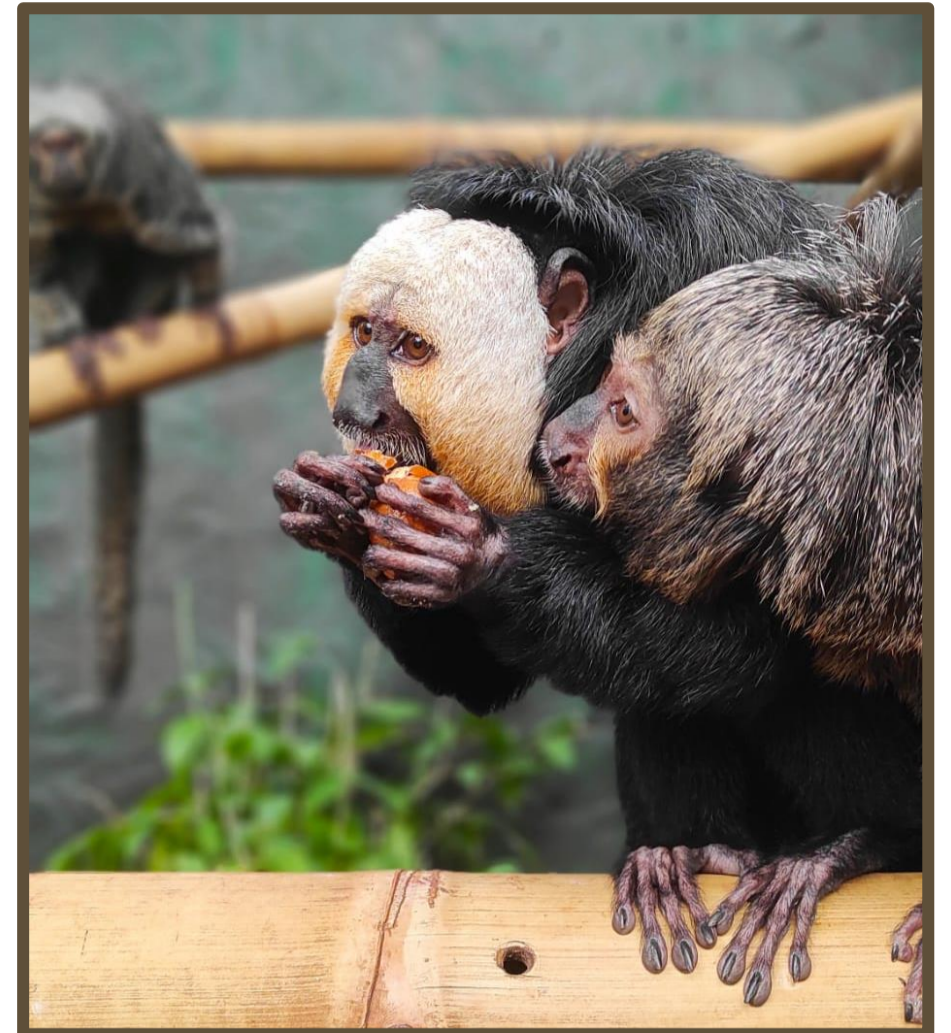


Figure 1. A male (holding an avocado seed) and female white-faced sakis.

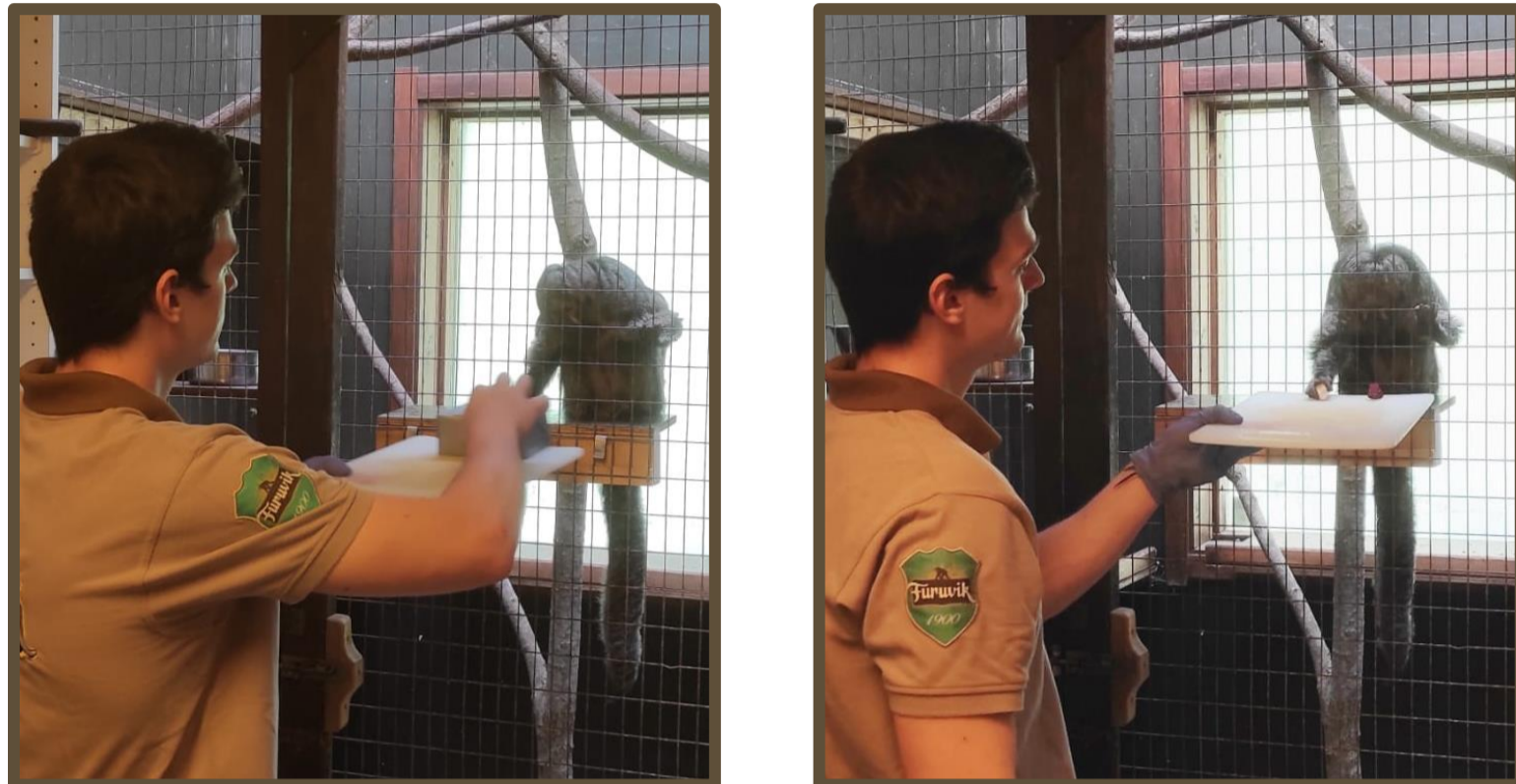


Figure 2. Presentation of the food item pair covered by a box on the cutting board and choice behavior displayed by the saki reaching his hand through the mesh and retrieving the preferred food item.

2. Aim

Assess the occurrence of spontaneous food preferences and evaluate possible correlations with nutrient composition.

3. Methods

Using a two-alternative choice test, five adult white-faced sakis were presented 10 times with all possible combinations of 15 food items. 1 point was given to the food each time it was chosen and 0.5 given to both when there was no choice.

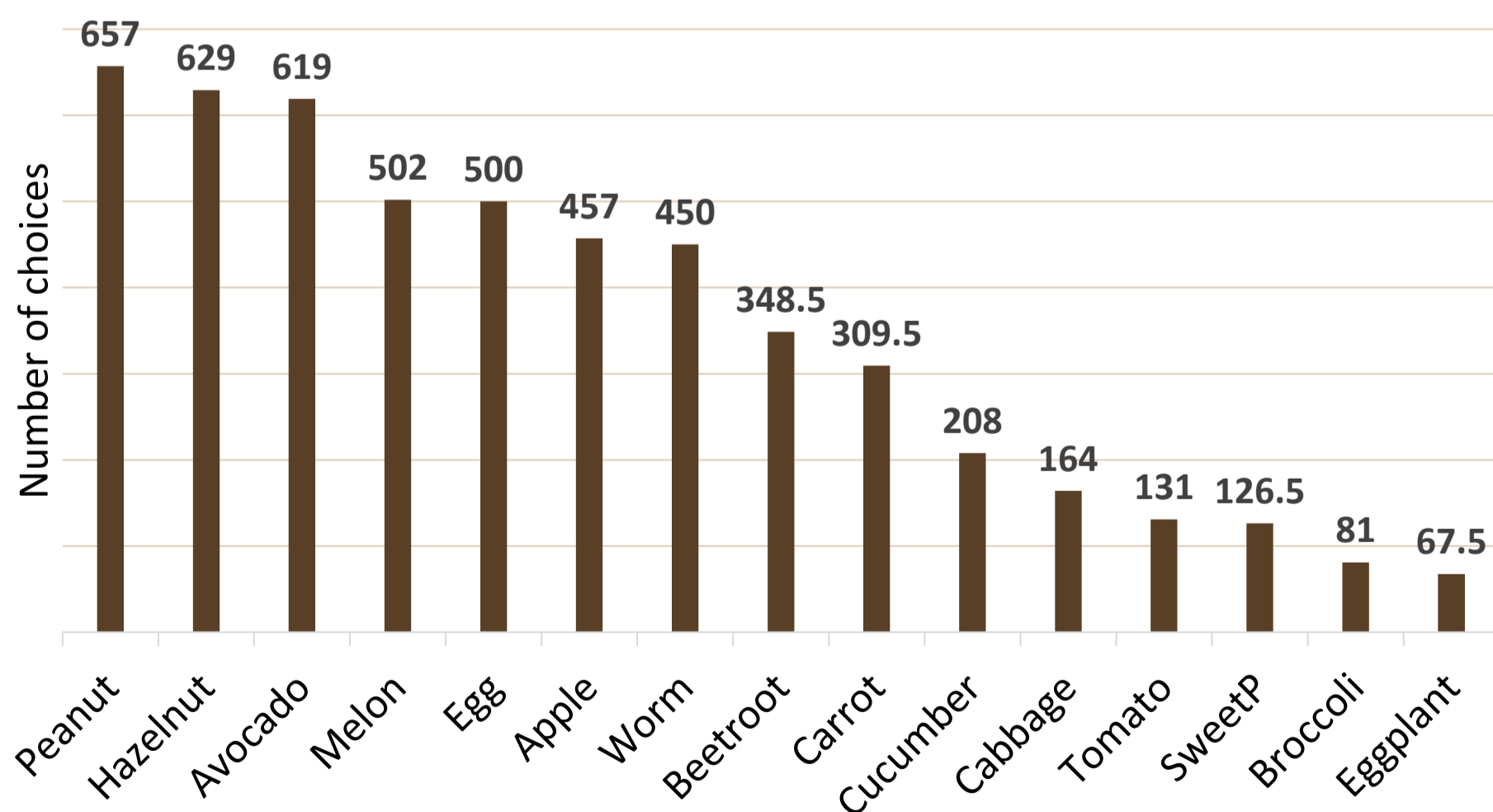


Figure 3. Total number of choices per food item at group level

Table 1. Spearman rank-order correlations (r) between food preference rankings and nutritional contents.

	r	p-value
Macronutrients		
Energy (kcal)	0.693	0.006
Carbohydrates	0.166	0.554
Proteins	0.337	0.219
Lipids	0.387	0.154
Nitrogen	0.316	0.252
Total Sugars	0.125	0.657
Starch	-0.113	0.688
Dietary fiber (NSP)	0.144	0.610
Water	-0.629	0.014
Individual Sugars		
Glucose	-0.381	0.161
Fructose	-0.389	0.152
Sucrose	0.193	0.492
Fatty Acids		
Saturated	0.387	0.154
Mono-unsaturated	0.578	0.024
Poly-unsaturated	0.429	0.111
Cholesterol	0.187	0.504

Conclusion

- The white-faced sakis' food preference was significantly and positively correlated with energy contents of the food items.
- Unlike all the other primate species tested so far, the correlation with lipids was stronger than the one with carbohydrates.
- These findings support the idea that white-faced sakis exploit seeds for their nutritional value and their content of lipids.