

DIET OF WEST AFRICAN CHIMPANZEES (*PAN TROGLODYTES VERUS*) IN A SAVANNA LANDSCAPE AT FONGOLI, SENEGAL

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Background

Chimpanzees living in savanna habitats are hypothesized to be constrained by the scarcity and distribution of fruit compared to chimpanzees living in forests. Low abundance, seasonal availability, and clumped distribution may impact fruit consumption of chimpanzees in a savanna environment, for example. Pruetz (2006) first presented the feeding ecology of savanna chimpanzees at Fongoli, Senegal based on preliminary information from the initial years of this long-term study site (2001-present), including the percentage of food type consumed, part of food eaten, and seasonal foraging behavior. The current study updates the diet of the Fongoli chimpanzees with a dataset covering a decade, from 2005-2014.

Purpose

To summarize the feeding behavior and diet of savanna-dwelling chimpanzees at the Fongoli, Senegal site based on a long-term data set.

Study Site & Subjects

Site

The Fongoli study site (12°39'N 12°13'W) in southeastern Senegal, 10km northwest of the town of Kedougou 45 km southeast of the Assirik site in the Parc National du Niokolo Koba.



Map of Senegal in Western Africa. Location of study site.

Study subjects

The subjects of this research are a community of Western chimpanzees (*Pan troglodytes verus*) found at the Fongoli site in Senegal. Community size has averaged 32 individuals over the past 15 years, with 10-12 adult males and 7-9 adult females included in the group.

Research Questions

1. What is the general diet of the Fongoli chimpanzee community between 2005-2014?
2. What is the diversity of species included in the diet of the Fongoli chimpanzees between 2005-2014?
3. Are there seasonal differences in the consumption of different food types at Fongoli?



Fongoli chimpanzee feeding on Baobab. Photo credit: J. Pruetz)



Chimpanzee examining figs. (Photo credit: J. Pruetz)



Fongoli chimpanzees foraging in a Caeno tree. (Photo credit: J. Pruetz)

Findings

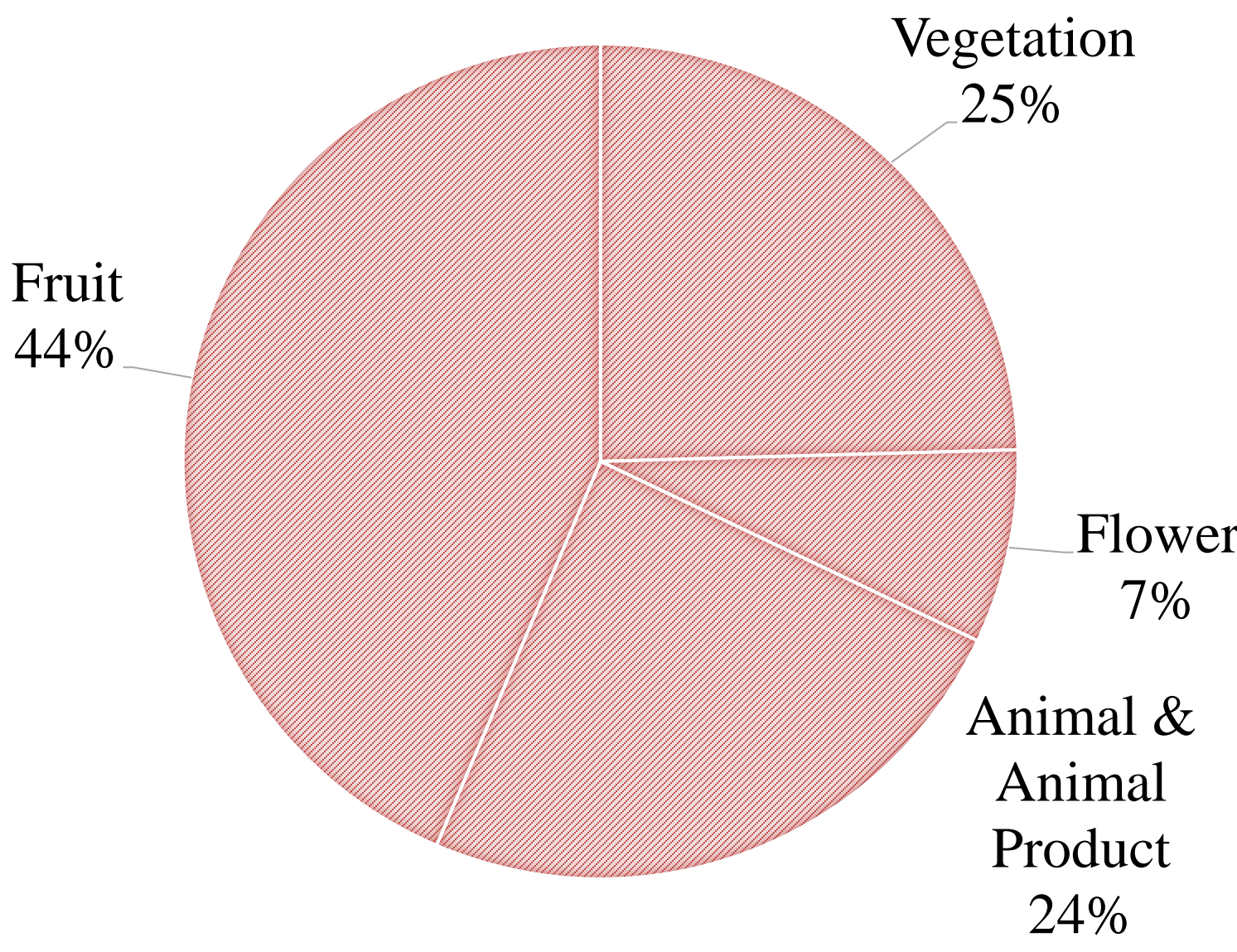
The general feeding of the Fongoli chimpanzees from 2005-2014 included:

Fruit - Flowers - Pith - Cambium - Seeds from grasses, climbers, trees and shrubs.

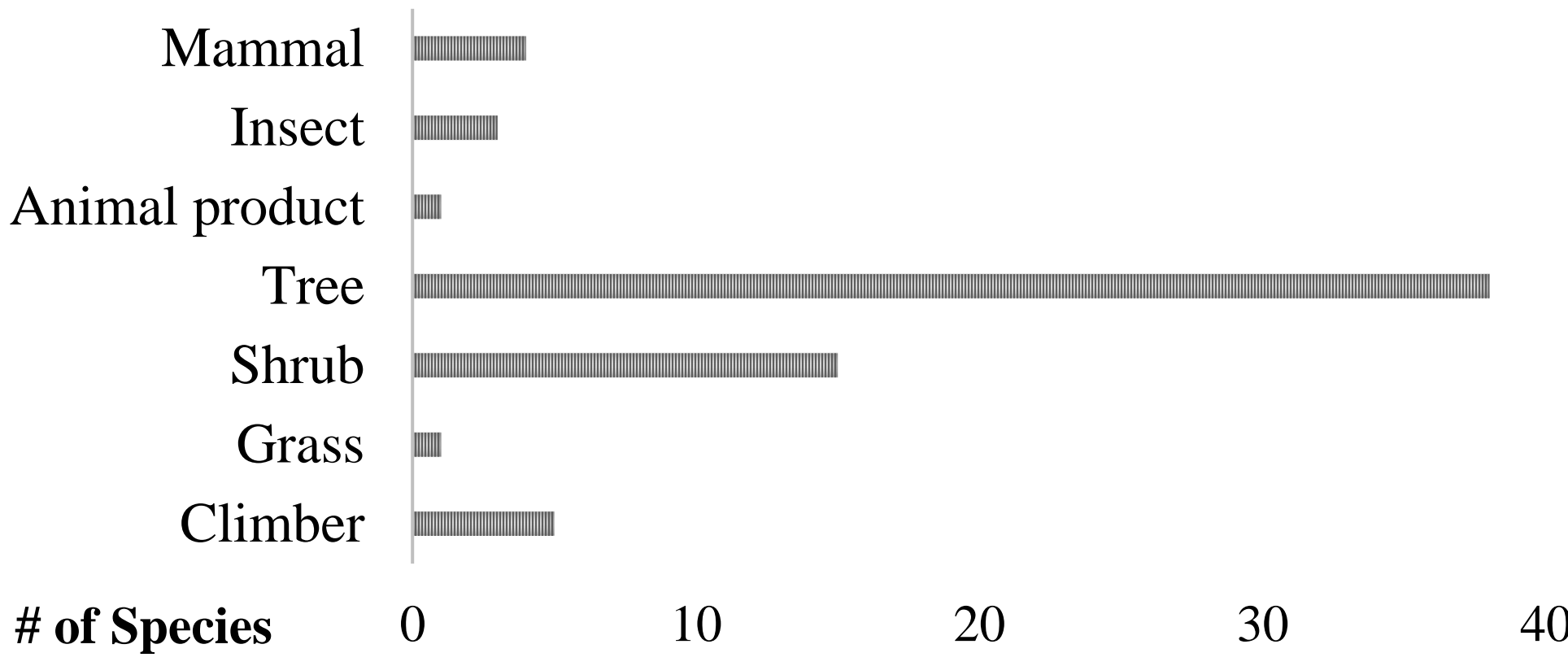
Additionally consumed:

- Mammals (patas monkeys, green monkeys, baboons, galagos)
- Animal products (honey)
- Insects (termites, beetles, ants)

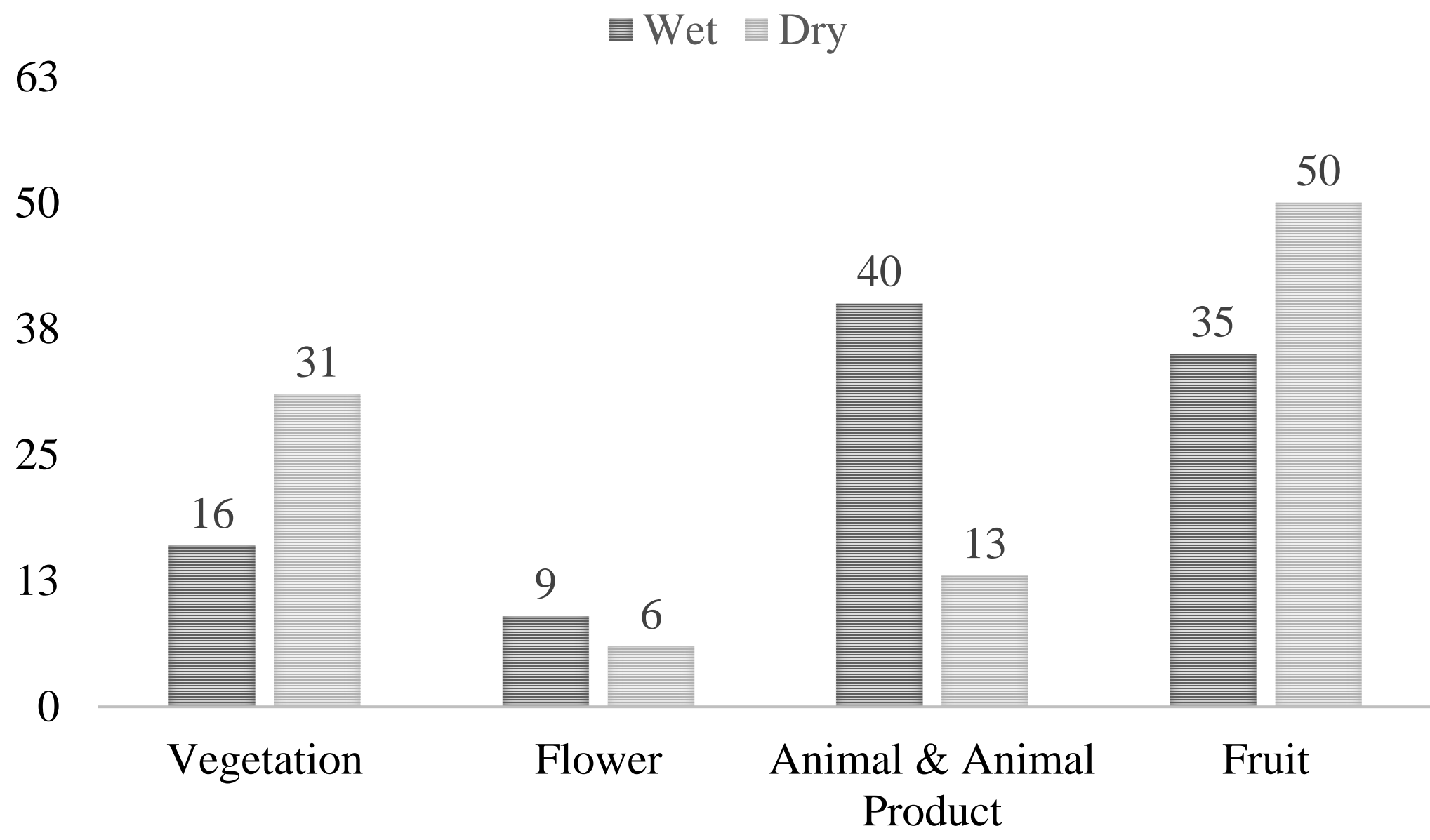
ITEM CONSUMPTION COUNT PERCENTAGES



NUMBER OF COMSUSED SPECIES



SEASONAL PERCENTAGE OF CONSUMED FOOD TYPES



Methods

- Daily focal subject follows of adult male chimpanzees between 2005-2014
- Direct observation of feeding bouts at 5-minute intervals.
- Feeding bouts recorded as independent feeding events associated with a single dietary item



Male chimpanzee during focal subject follow. (Photo: J. Pruetz)

Conclusions

- The Fongoli chimpanzees consumed 77 food types including fruit, leaves, mammals, insects, and animal products (honey).
- Fruit was the most common food type by count between 2005-2014.
- Trees are the most consumed species type.
- There is a seasonal shift between wet and dry seasons when comparing count percentages.
 - Wet season diet was dominated by animal products and fruit.
 - Dry season diet was dominated by foliage and fruit.

References

Pruetz, J. D. (2006). Feeding ecology of savanna chimpanzees (*Pan troglodytes verus*) at Fongoli, Senegal. *Feeding ecology in apes and other primates*, 326-364.