

# Giraffe feeding reminder



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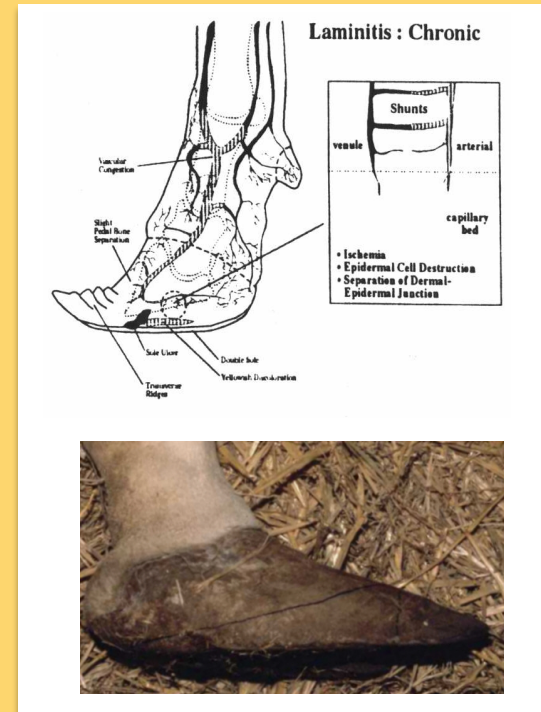


# Why is feeding important ?

- to meet nutritional and physiological needs / avoid illness and malfunction

Table 2-14: Proposed nutrients in giraffe diets

Nutrient	Concentration range (dry matter basis)
Based on experience of nutrient concentrations in appropriate diets for medium / large browsers in captivity	
NDF, %	35-50
Protein, %	14
Calcium, %	0.70-0.97
Phosphorus, %	0.36-0.40
Ca : P ratio	$\geq 2 : 1$
Magnesium, %	0.18-0.24
Potassium, %	1.6-1.8
Sodium, %	0.10-0.44
Iron, mg/kg	126-139
Zinc, mg/kg	54-68
Copper, mg/kg	10-12
Manganese, mg/kg	54-57
Selenium, mg/kg	0.12-0.18
Iodine, mg/kg	0.3-0.4
Vitamin A, IU/g	1.5-2.2
$\beta$ -Carotin mg/kg	45-55
Vitamin D, IU/g	0.4-0.5
Vitamin E, IU/kgg	120-178

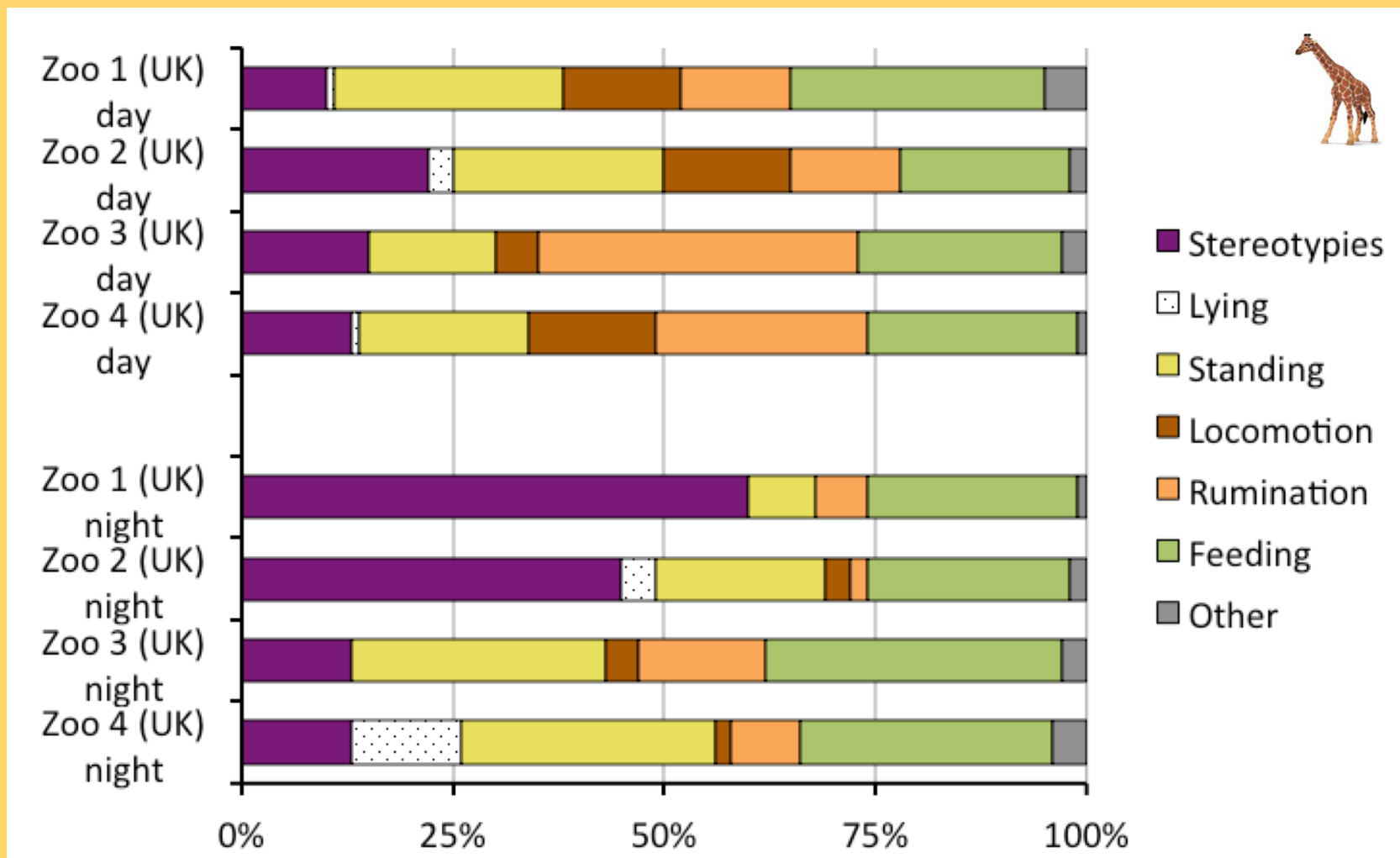






# Why is feeding important ?

- to meet nutritional and physiological needs / avoid illness and malfunction
- to meet behavioral needs



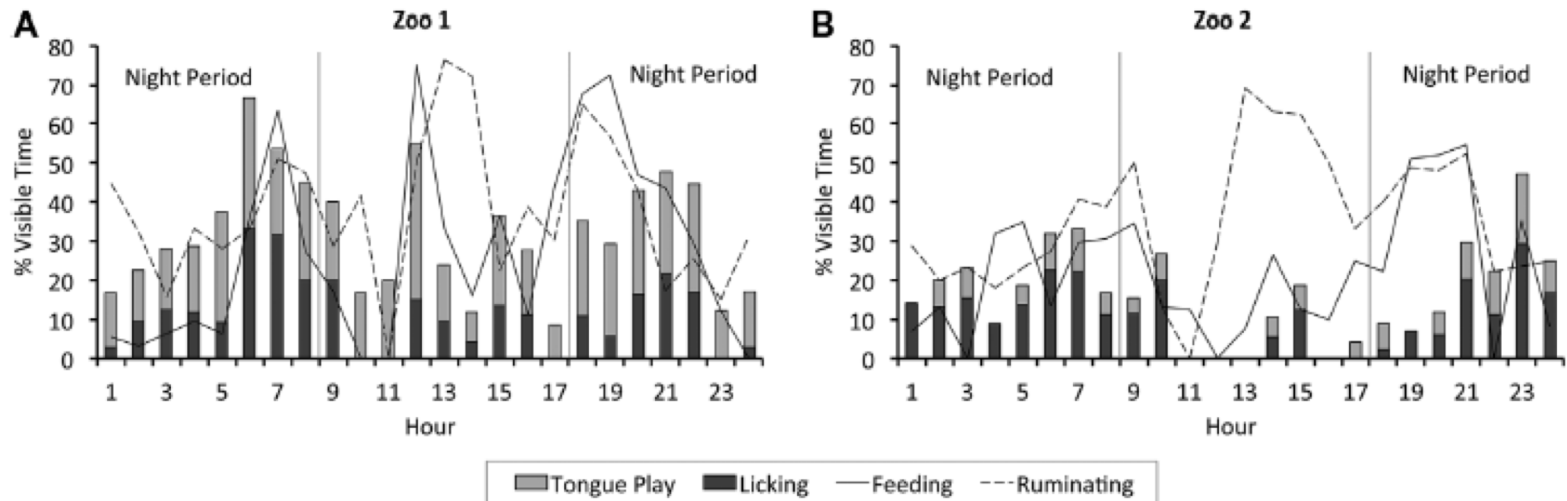
Veasey et al. (1996)



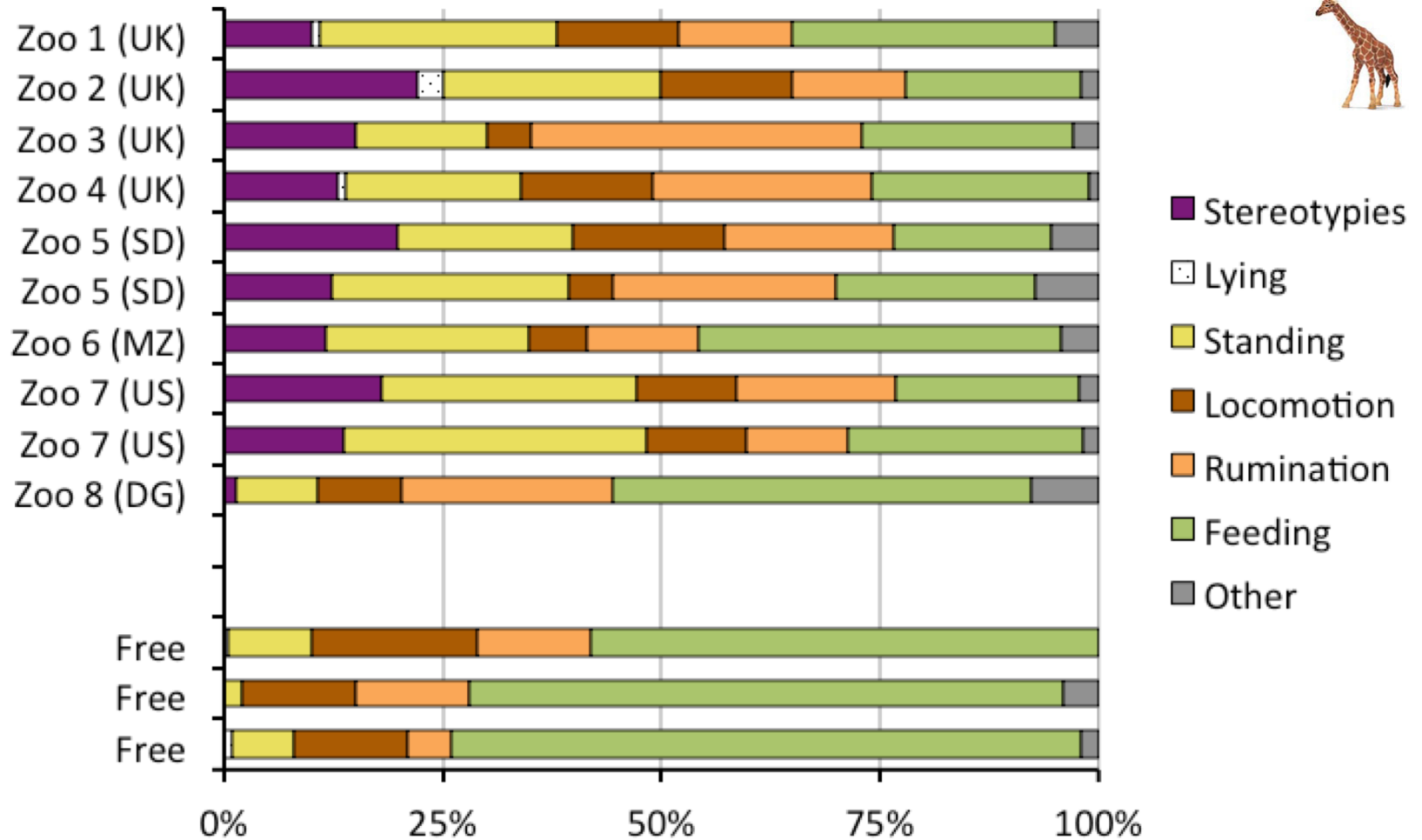
# Nocturnal Behavior in Captive Giraffe (*Giraffa camelopardalis*)—A Pilot Study

Graham Duggan,<sup>1,2\*</sup> Charlotte C. Burn,<sup>3</sup> and Marcus Clauss<sup>4</sup>

Zoo Biology 35: 14–18 (2016)



# Aim: few stereotypies – lots of feeding



Veasey et al. (1996), del Castillo et al. (2005), Bashaw (2011), Orban et al. (2016); du Toit & Yetman (2005), Pellew (1984), Schüssler et al. (2015)




Aim: few stereotypies – lots of feeding



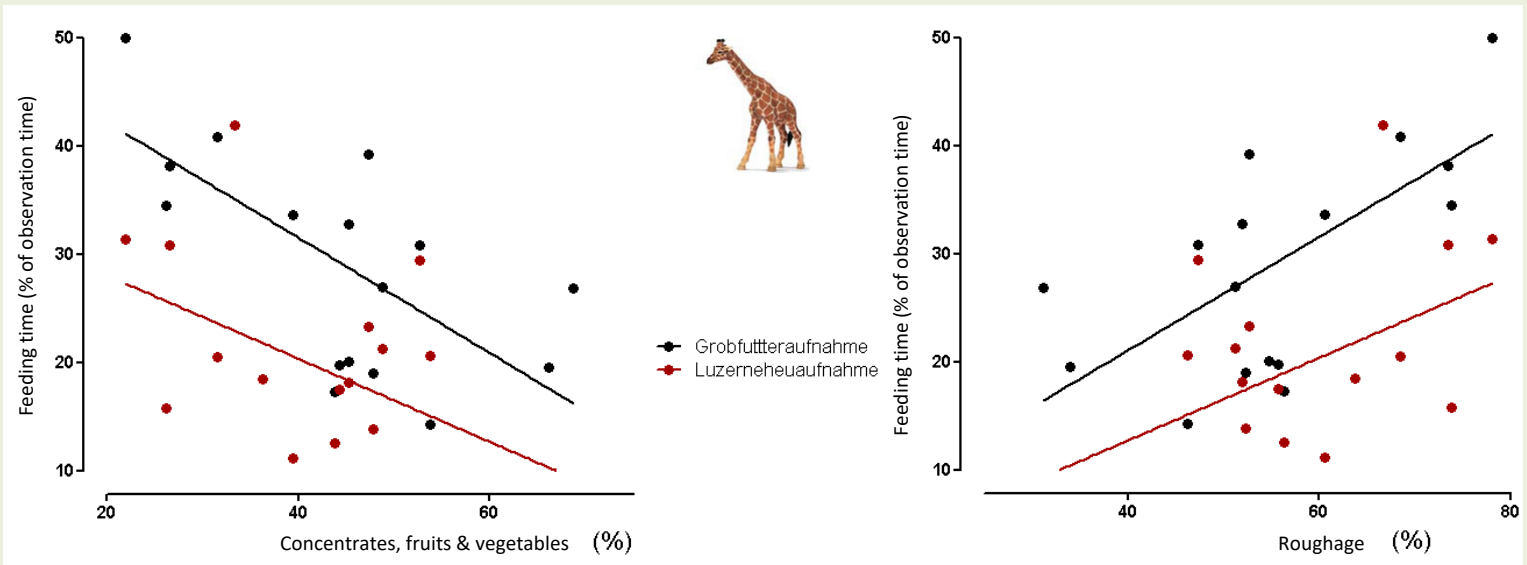


# Why do giraffes eat 'too little' ?

Influence of ration composition on nutritive and digestive variables in captive giraffes (*Giraffa camelopardalis*) indicating the appropriateness of feeding practice

I. Gussek<sup>1</sup> | C. Große-Brinkhaus<sup>1</sup> | K.-H. Südekum<sup>1</sup>  | J. Hummel<sup>2</sup>

*J Anim Physiol Anim Nutr.* 2018;102:e513–e524.



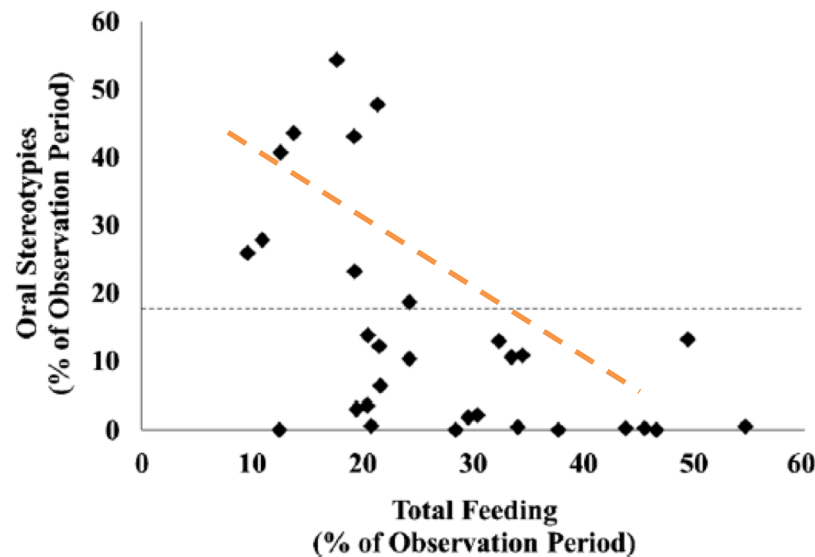


# Aim: few stereotypes – lots of feeding

## Effects of Guest Feeding Programs on Captive Giraffe Behavior

David A. Orban,<sup>1\*</sup> Janice M. Siegford,<sup>2</sup> and Richard J. Snider<sup>1</sup>

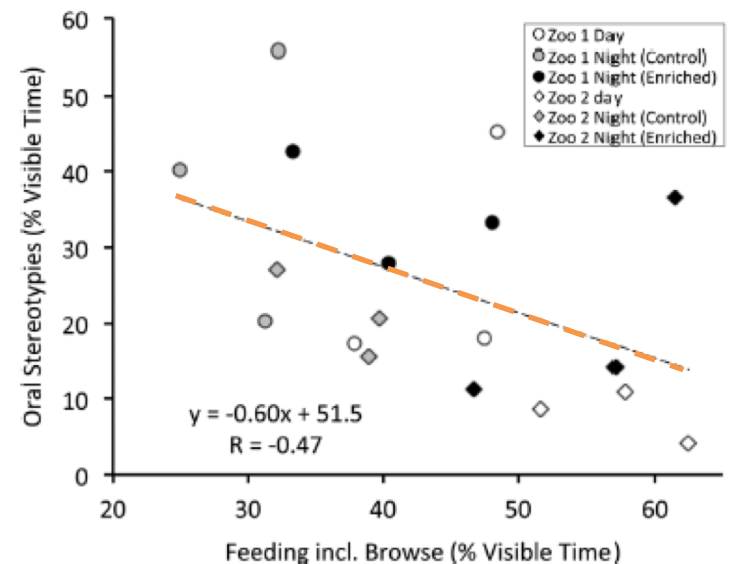
Zoo Biology 35: 157–166 (2016)



## Nocturnal Behavior in Captive Giraffe (*Giraffa camelopardalis*)—A Pilot Study

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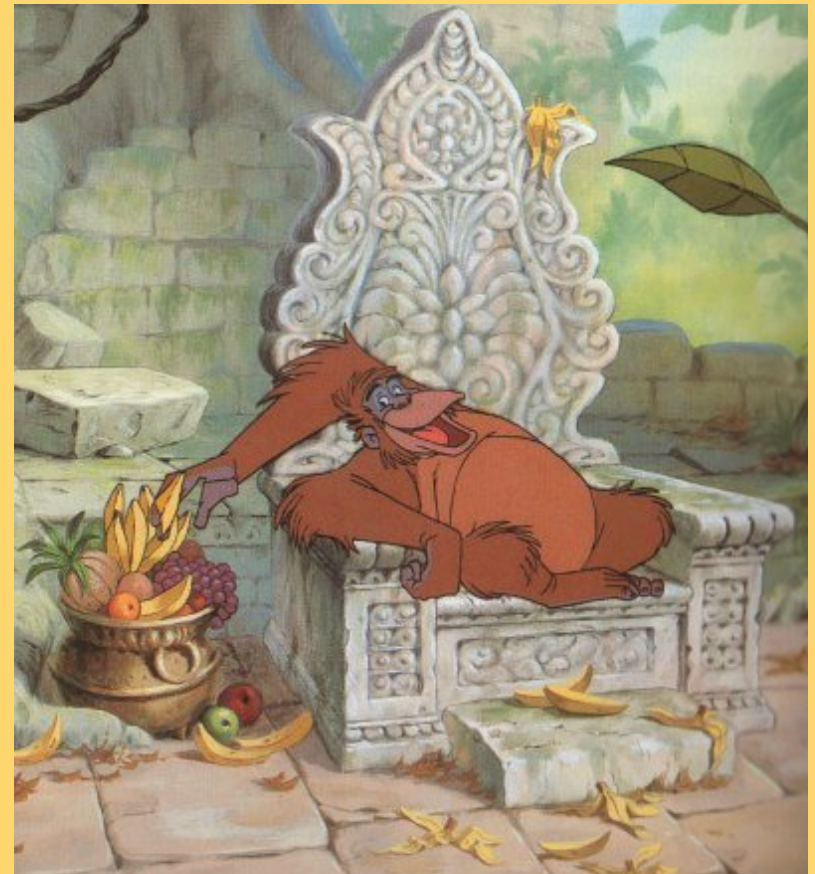
# Why is feeding important ?

- to meet nutritional and physiological needs / avoid illness and malfunction
- to meet behavioral needs
- to tell a story to  
your visitors  
your employees



# What is your story ?

“Wild animals are like humans – the world is as Walt Disney showed it.”







# What is your story ?



## Sugars and other nutrients in produce (of fruits and vegetables)

All values expressed as g/kg wet weight, unless otherwise stated.

Photos and design: Emile Prins, 2012.  
Information used from Danish Food Composition Table and Schmidt et al., (2005).

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# What is your story ?

“We show you that you can maintain wild animals in human care with diets that do not resemble the ones they eat in the wild.”

“We show you on what animals can actually survive.”

“We know commercial fruits are not natural diet items but we want to promote the use of apples anyhow.”

“Conservation has nothing to do with trying to reproduce natural diets.”

“Long live Granny Smith!”



# What is your story ?

“It is our aim to feed our animals a diet that consists of about 0.5 % natural diet items.”



This represents app. 1.5 kg edible browse  
(= 380 g dry matter)  
per 5 animals  
who would eat 18 kg DM /d each,  
i.e. 0.4 % of natural intake.





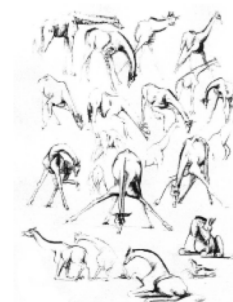


Daily allotment for one okapi (fed browse only)  
(photo J. Hummel)





**EAZA  
Husbandry & Management  
Guidelines**



*Giraffa camelopardalis*

2006

*Amount of browse fed to a group of giraffe (4 adult and 3 half-grown) 2 times a week (roughly estimated, this amount would fulfil the total energy needs of 3 adult giraffes for one day, if consisting of a variety of well palatable browse species)*



