Learning to be an Orangutan – Implications of Life History for Orangutan Rehabilitation

Supplementary Material

Table S1: Ethogram

Activity budget		
Feed	Processing, gathering and ingestion of food items, drinking	Classification: • Type of food (from caretaker, forest food, non-forest food, soil, invertebrate, left-overs, water, other, unknown) • Part of plant (fruit, flower, seed, stem, pith, bark, leaves, young leaves, unknown)
Rest	Sitting, lying, standing, hanging for more than 5 sec	
Travel	Movements, usually between trees and patches	
Social	Social interactions with conspecifics and/or caregivers	Classification: • Social play • Sexual behaviour • Conflict (aggressive and submissive) • Affiliation (body contact, food sharing, peering, grooming, greeting, kissing, gentle touch, hugging) • Caregiving (carrying, share a nest, protection from danger, sleeping in caregiver's lap)
Other	Solitary activity, building a nest, stereotypic behaviour, other behaviour	Classification of solitary activity: • Solitary locomotor play • Exploration/manipulation • Vigilance Classification of nest building: • Type of nest (ground, crotch, branch, trunk, connected trees) • Quality of nest (old, rebuild, new)
Use of Forest Stratum		
Ground	From the ground up to a height of 1 m	
1-5 m	From >1 m up to a height of 5 m	
5-10 m	From >5 m up to a height of 10 m	
>10 m	Higher than 10 m	
Proximity		
Proximity 1	From body contact to 1 m distance	Classification:
Proximity 2	>1 to 5 m distance	• Human: female caregiver, male caregiver, familiar person, stranger
Proximity 3	>5 to 10 m distance	
Proximity 4	>10 m distance	• Orangutan: name of orangutan

Table S2: *Intra-individual comparison of social interaction frequencies (Amalia over 3 quarters, Eska and Cantik over 6 quarters).*

		Q1	Q2	Q3	Q4	Q5	Q6
Social human	**Amalia**				-0.7	4.4	-3.7
	Eska	-1.7	9.7	2.2	-4.7	-2.6	-3.3
	Cantik	-6.5	-0.2	8.0	-2.3	-1.3	2.6
Social OU	**Amalia**				1.5	3.7	-5.1
	Eska	13.7	6.8	0.2	-4.3	-3.9	-13.5
	Cantik	15.3	2.1	4.0	2.6	-7.3	-14.4
No social interaction	**Amalia**				-0.1	-0.7	0.7
	Eska	-4.1	-3.4	-0.3	2.0	1.6	4.7
	Cantik	-3.3	-0.5	-2.2	-0.4	2.2	3.6

Values refer to standardized residuals (*r*). Darker colours highlight significantly higher values than expected (i.e. standardized residuals of ≥2); lighter colours highlight significantly lower values than expected (i.e. standardized residuals of ≤-2).

Table S3: *Intra-individual comparison of stratum use (Amalia over 3 quarters, Eska and Cantik over 6 quarters).*

		Q1	Q2	Q3	Q4	Q5	Q6
Ground	**Amalia**				14.8	-1.7	-11.9
	Eska	-2.7	13.5	12.7	-0.9	-7.0	-16.4
	Cantik	2.2	8.0	6.7	8.0	-5.6	-16.3
1-5 m	**Amalia**				12.9	-0.9	-10.9
	Eska	3.0	2.9	2.8	0.1	-0.2	-8.9
	Cantik	8.3	4.5	5.3	-1.2	-4.7	-10.8
5-10 m	**Amalia**				0.5	1.2	-1.7
	Eska	-5.9	-7.6	-7.0	7.6	5.4	8.7
	Cantik	-3.0	-4.3	-2.4	-2.5	0.5	10.6
>10 m	**Amalia**				-9.9	0.2	8.9
	Eska	5.9	-15.4	-14.7	-5.9	5.2	25.0
	Cantik	-6.4	-7.5	-8.4	-4.1	8.7	14.9

Values refer to standardized residuals (*r*). Darker colours highlight significantly higher values than expected (i.e. standardized residuals of ≥2); lighter colours highlight significantly lower values than expected (i.e. standardized residuals of ≤-2).