

Supplement 1. The daily provisioned diet of the geladas at the Wild Place Project, Bristol (W. Walker, personal communication, 26 Sep 2017). * All livefood to be gut loaded and dusted with Nutrobal

Items	Weight (for 6)	Weight (per adult)
Daily		
Grass pellet	450g	75g
Kiezebrink Leaf eater pellet	150g	25g
Seed mix	150g	25g
Grass hay	Ad lib daily	Ad lib daily
Cut grass (fresh at times of year when available)	Ad lib daily	Ad lib daily
Apple	450g	75g
Chicory	385g	64g
Fennel	775g	130g
Cucumber	X1(~300g)	1/6
Leek	680g	110g
Sweet pepper	X1 (~450g)	1/6
Carrot	450g	75g
Celery	X1 (bunch) (~400g)	1/6 (bunch)
Savoy cabbage	X2 (~1600g)	2/6
Lettuce	6 lettuces	1 lettuce
Mondays As for 'daily' plus:		
Avocados	X1 (~170g)	1/6
Tomatoes	300g	50g
Kohlrabi	600g	100g
Wednesdays As for 'daily' plus:		
Mealworms*	120g	20g
Morioworms*	120g	20g
Locusts*	X12	X2
Kale or chard, shredded/chopped	X6 large leaves	X1 large leaf
Fridays As for 'daily' plus:		
Beetroot	X1 (bunch) (~500g)	1/6 (bunch)
Cauliflower	X1 (~840g)	1/6
Kohlrabi	1200g	200g
Radish	X1 (bunch) (~250g)	1/6 (bunch)
Onion	500g	85g
When available		
Browse (fresh leaves and branches)	Ad lib	Ad lib

Supplement 2. Full ethogram derived from Wood (2003) for a hamadryas baboon colony at Wellington Zoo and altered for the observation of gelada at the Wild Place Project.

"Major" Activity	"Minor" Activity		Description
	Abbreviation	Behaviour	
Solicitation			Sexual and pseudo-sexual behaviours
	DPG	Visual presentation	Displaying genitals - hindquarters turned towards receiver, giver crouched or standing
	DPR	Receiving visual presentation	Responding to visual presentations – observing, turning away, touching 'giver's' rump or tail, lips quivering.
	DVG	Vocal presentation	Clucking or shrieking, generally (although not exclusively) associated with visual presentation.
	DVR	Receiving vocal presentation	Responding to vocal presentations - observing, turning away, touching 'giver's' rump or tail, lips quivering.
	M	Mating	Partaking in heterosexual mating activity
	MS	Simulated mating	Partaking in homosexual mating activity.
	THG	Tail holding	Actively herding another by the tail.
	THR	Herded by tail	Actively being led by the tail.
	P	Pursuit	Following the same path.
Antagonistic			Hostile or fearful behaviour
	AVI	Visual aggression	Displaying aggression without physical contact-brow-raising, teeth bearing, ground-beating, lunging and 'feinting'.
	APH	Physical aggression	Displaying aggression by physical contact, fighting and contesting, or attempting physical contact by prolonged chasing.
	AVO	Vocal aggression	Shrieking, screeching and kecking, generally (although not exclusively) associated with aggression
	SH	Shaking	Vigorously shaking branches, structural poles or wire netting
	AV	Avoidance	Moving or turning away upon approach of conspecific, or avoiding crossing path of conspecific.
	SP	Supplanting	The approach or activity of sample animal causes another to move or turn away.
	MI	Intervention	Physically intervening in hostile situations –forcing contesting conspecifics apart by positioning or chasing.
	AL	Alert	Being alerted by disturbance – sitting or standing upright and vigilant, facing direction of disturbance.
	Foraging activity		
FE		Feeding	Taking repetitive bites from a single item of food that has been provided.
FPA		Foraging in provisioned area	Repeatedly searching for small items of food that has been provided and transferring these directly to the mouth.
NPF		Foraging in non-provisioned area	Repeatedly searching for small items of food that hasn't been provided and transferring these directly to the mouth.
ROUT		Reaching out	Extending arm beyond peripheral fence to grasp at surrounding vegetation.
LF		Relocating food	Moving food from one location to another - walking, running or climbing.
DR		Drinking	Lapping from water sources provided.
LI		Licking	Licking inanimate items.
Enrichment device activity			Behaviour relating to the investigation, acquisition and consumption of food from enrichment device
	EFI	Foraging inside device	Repeatedly searching for small items of food inside device (hay, various seeds or rice) and transferring these directly to the mouth.
	EFC	Foraging contents of device	Contents of device foraged within 1metre of device
	EFG	Foraging grass from device	Repeatedly picking grass attached to device and transferring grass directly to the mouth.
	EMA	Non-foraging manipulation	Forcibly rocking, pushing, tipping, rolling, manoeuvring new enrichment item.
Grooming			Preening behaviours
	GS	Grooming self	Continuous period of self-preening.
	GOR	Receiving grooming	The focal animal groomed by one or more others.
	GOG	Grooming other	The focal animal, alone or accompanied by an additional individual/s grooms another.

Supplement 2. Continued.

"Major" Activity	"Minor" Activity		Description
	Abbreviation	Behaviour	
Appeasement			Non-grooming examples of calming, pacifying and reassuring gestures (including reconciliation between former opponents) following threatening events
	TAAP	Tactile appeasement	Physical placation by non-aggressive mutual hugging or touching.
	VOAP	Vocal appeasement	Vocal placation, generally (although not exclusively) associated with tactile appeasement.
Inactivity			Stationary and without any of the other behaviours
	S	Sitting	Sitting without additional activity - eyes open or closed.
	R	Resting	Lying, sleeping, or basking in sunshine, without additional activity.
	SS	Standing still	Standing (quadrupedal or bipedal) for longer than a momentary pause and possibly observing.
Locomotion			Moving from one destination to another
	W	Walking	Terrestrial quadrupedic locomotion - walking on four legs.
	RU	Running	Terrestrial quadrupedic locomotion - running on four legs.
	C	Climbing	Ascending or descending from climbing structures or wire mesh.
	J	Jumping	Leaping onto, down from, or over structures.
	WOB	Relocating object	Moving non-food items from one location to another - walking, running or climbing.
	TM	Troop movement	Moving with majority of colony in same direction.
	TP	Troop patrol	Moving in line ahead by groups larger than a single harem.
Play			Non-food enrichment-directed and play behaviours
	ME	Manipulating environment	Forcibly rocking, pushing or tipping substantial enrichment items (excluding new) - logs, branches, water dishes - within enclosure.
	DI	Digging	Burrowing into bark chip or soil using front feet.
	PF	Play fighting	Tussling or challenging without physical or vocal aggression
	SCH	Scraping	Scraping non-edible objects along the ground.
Out of sight	OOS		Periods where observation not possible