DAY 19 **MONTH** 09 **YEAR** 09 **OBS-PC** SJ **TMF/40** SM **HOW FOUND** NEST

Time-grid observation sheet. Column headers (left to right): Estrus | ST TU BB YB AJ MS LK KK PG ES PB TJ BL BU BO MU MX MN OU OT OG OM TG TT TS UM UN AL AT AZ LR LO WA WE WL WC QT QV RD ML NP EU ... | GRID | MNK | SP | PT

Right-hand observation columns by time:

Time	GRID	MNK	SP	PT
5:45				
6:00	N/25	BWC	—	—
6:15		"	—	—
6:30		None	—	—
6:45			APH	RF
7:00			"	"
7:15	↓	None	"	"
7:30	N/25	BLU	"	"
7:45	M/25	none	—	—
8:00			—	—
8:15			—	—
8:30			—	—
8:45			—	—
9:00			—	—
9:15		None	—	—
9:30		MGB	ACA	DPH
9:45			—	—
10:00			—	—
10:15		MGB	FCP	UF
10:30	↓	None	—	—
10:45	M/25		—	—
11:00	M/25		CAP	YL
11:15	"		"	"
11:30	"		—	—
11:45	N/25		—	—
12:00	N/25		FBR	RF
12:15			"	"
12:30				
12:45	M/25	None	FBR	RF
13:00	N/25	None	—	—
13:15			FBR	RF
13:30			"	"
13:45	↓		"	"
14:00	N/25		—	—
14:15	MGB		MAE	RF
14:30			"	"
14:45			"	"
15:00			MAR	DPH
15:15	M/25		MAE	RF
15:30	N/25			
15:45	"		APH	RF
16:00	"		"	"
16:15	N/25		CAP	YL
16:30	O/25	↓	—	—
16:45		None	PEX	RF
17:00		✗	"	"
17:15		✗	—	—
17:30		✗	—	—
17:45		None	—	—
18:00	↓	"	—	—
18:15	O/25	None	—	—
18:30				

Health row (bottom): values 1, 1, 1, 1 ... 2 1 1 ... 1 1 1 1 2 ... 1 1

COMMENTS 905 LO was heard coughing 812 OU heard coughing

FOUND: C=calls, FT=checking fruit trees, FFT: waiting at fruit tree, N=nest **PARTY COMPOSITION:** X: present at that time; O = thought to be around

OTHERS: Write IDs in blank columns: HH, PE, UM-UH-UN, GD-GS-GG, MU-MX, AFF, AMM, JFF, JMM, IMM, IFF

PT: RF = ripe fruit, UF = unripe fruit, SD = seed, YL = young leaf, ML = mature leaf, FL = flower, WD = wood, RT = root, SL = soil, MT = meat

MNK: RDC= Red colobus, BWC= Black and white colobus, RDT= Red-tail monkey, BLU= Blue Monkey, MGB= Mangabey, BAB= Baboon

HEALTH: 1 = Healthy, 2 = Cold/cough, 3 = Diarrhoea, 4 = Wound (describe). **ESTRUS:** 1 = None, 2 = Partial, 3 = Full

KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: SJ OTHERS: SM FOUND: NEST

LR→TJ (handwritten at top)

Party Composition

Time	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)	Loc	F	SP	PT	MNK	BEH
552	OBS arrive at the nest site.									
600	TJ	LR	LO		✓/BFP				Bwz	
615	TJ	LR	LO		n				Bwc	
623	TJ leaving the night nest.									
625	TJ made vocal displays and buttress bangs and LR didn't respond.									
626	LR left her day nest									
628	LR approach pant-grunt to TJ and he ignored.								PTG	
629	LR approach pant-grunt, and made soft bites on TJ								PTG	
630	TJ	LR	LO		E/14				⊘	
631	TJ and LR (LO) climbed into the feeding tree.									
637	Distant calls heard from south of K-14 and .. LR made pant-hoots.									
645	TJ	LR	LO		E/14	✓	APH	RF	⊘	
650	Chimps climbed down from APH, and started moving on the ground.									
657	LR(LO) TJ joined us in the feeding tree and LR made pant-barks and pant hoots.									

Aggression/Received aggression

Time	Aggr. ID	VD	NvD	CHA	Attack 1	Attack 2	Attack 3	Vic ID	No	Av	Tn	Sb	Rt	RA	Behavioural context	T/G
625	TJ	8sec							Non						walce	9

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

At 15-MIN INTERVALS: Party composition, Location, Food, MNK

Estrous: 1=None; 2=Partial; 3=Full

AP: adult play; CP: copulation; CY: carry; DR: drink; ELE: elephants; FBK: food bark; HCG: hand-clasp groom; HNY: honey; IGI: inter-group interaction; LF: leaf use; MAT: monkeys attack; PIG: pigs; PRED: predation; PTG: pant-grunt; RN: rain; RD: rain display; SOIL: eating red soil; STK: stick use; TLU: tool use; UNF: unusual food; Q: other unusual events; PAT: patrol (non-conflict hair erection? Sniff? Bipedal? Scan? Reassurance touch? Close single file?)

KPC BEHAVIOUR

Ou→D OT→

DAY: 19 **MONTH:** 09 **YEAR:** 09 **KPC:** ST **OTHERS:** 5M **FOUND:** NEST

Time	\multicolumn{4}{c}{Party Composition}	Loc	F	SP	PT	MNK	BEH
	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)						
700	LK TJ	LR	Lo		F/n ✓		APH	RF	Ø	
715	LK TJ	LR	Lo		F/12 ✓		APH	RF	Ø	
730	LK TJ	LR	Lo		" ✓		"	"	BLU	
737	Distant calls heard from North of K-14 and the focal IDS didn't respond.									
739	chimps climbed down from APH and started moving on ground									
742	LK made vocal displays, And LR made waars									
745	LK	LR	Lo		A17				Ø	
745	LK and LR made joint vocal displays and some individuals from the distant made waars									
748	LK and LR made joint vocal displays, and some IDS from the distant made waars.									
753	LK made non-vocal displays as they join other IDS									
800	LK TJ LR ou OT	Oh Lo	Om Oh		T/24				①	
805	Ou grooming PG shortly									
808	Ou grooming OL									

Aggression/Received aggression

Time	Aggr. ID	VD	NvD	CHA	\multicolumn{3}{c}{Attack}	Vic ID	\multicolumn{6}{c}{Response of victim}	Behavioural context	T/G
		\multicolumn{2}{c}{Duration}		1	2	3		No	Av	Tn	Sb	Rt	RA		
742	LK	6sec						None							Unknown	9
745	LK/LR	10sec						None							Social excitment	9
748	LK/LR	8sec						none							Social excitment	9

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

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KPC BEHAVIOUR

DAY: 19   MONTH: 09   YEAR: 09   KPC: ST   OTHERS: 5m   FOUND: NES

Time	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)	Loc	F	SP	PT	MNK	BEH
812	OU was heard Coughing.									
815	LK ᵀᴶ Pg OU OT LR	OG LO	Om OL		T/24				⊘	
821	LR approach pant-grunt and groom pg									PTG
822	Mutual grooming LR ⇌ Pg									
824	Pg grooming LK.									
830	LK Pg TJ LR OUOT	OG LO	Om OL		T/24				⊘	
"	TJ approach pant-grunt to LK and LK groom TJ									PTG
831	LR grooming pg.									
832	Pg grooming LR.									
833	OU approach pant-grunt and present to LK, then LK inspected her by touching Estrous and groomed her.									PTG
841	LR grooming Pg									
845	LK Pg TJ LR OUOT	OG LO	Om OL		T/24				⊘	
850	OT grooming Om									
859	LR grooming Pg									
900	LK Pg TJ LR OU OT	OG LO	Om OL		T/24				⊘	
905	LO was heard Coughing									

Aggression/Received aggression

Time	Aggr. ID	VD	NvD	CHA	Attack 1	2	3	Vic ID	Response of victim No	Av	Tn	Sb	Rt	RA	Behavioural context	T/G
	Duration															

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

At 15-MIN INTERVALS: Party composition, Location, Food, MNK

Estrous: 1=None; 2=Partial; 3=Full

AP: adult play; CP: copulation; CY: carry; DR: drink; ELE; elephants; FBK: food bark; HCG: hand-clasp groom; HNY: honey; IGI: inter-group interaction; LF: leaf use; MAT: monkeys attack; PIG: pigs; PRED: predation; PTG: pant-grunt; RN: rain; RD: rain display; SOIL: eating red soil; STK: stick use; TLU: tool use; UNF: unusual food; Q: other unusual events; PAT: patrol (non-conflict hair erection? Sniff? Bipedal? Scan? Reassurance touch? Close single file?)

KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: SJ OTHERS: Sm FOUND: NESt

Party Composition

Time	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)	Loc	F	SP	PT	MNK	BEH
914	Lu grooming Pg									
915	LuPgTu LROTou OG Lo	Om OL	Bu							Ø
"	chain groom OG → Lu → Pg									
919	LR grooming Lo									
920	Handclasp mutual groom Lu ⇄ Pg									Hcg
921	Lu grooming Pg after handclasp									
924	chain groom OG → Lu → Pg									
929	Handclasp Mutual groom Pg ⇄ Lu									Hcg
930	LuPgTu LROu Oi OG Lo	Om OL	Bu	✓	Aca	PtH	mgB	
"	Lu grooming pg after hand clasp									
931	mutual grooming Lu ⇄ Pg									
932	Handclasp mutual groom Pg ⇄ Lu									Hcg
933	Pg grooming Lu after handclasp									
934	Lu grooming Pg									
936	LR grooming Lo									
945	LuPgTu LROuOT OG Lo	Om OL	Bu				mgB	
946	Handclasp Mutual groom Lu ⇄ Pg									Hcg
947	Pg grooming Lu after handclasp									

Aggression/Received aggression

Time	Aggr. ID	VD	NvD	CHA	Attack 1	2	3	Vic ID	No	Av	Tn	Sb	Rt	RA	Behavioural context	T/G
		Duration														

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

At 15-MIN INTERVALS: Party composition, Location, Food, MNK   Estrous: 1=None; 2=Partial; 3=Full

AP: adult play; CP: copulation; CY: carry; DR: drink; ELE; elephants; FBK: food bark; HCG: hand-clasp groom; HNY: honey; IGI: inter-group interaction; LF: leaf use; MAT: monkeys attack; PIG: pigs; PRED: predation; PTG: pant-grunt; RN: rain; RD: rain display; SOIL: eating red soil; STK: stick use; TLU: tool use; UNF: unusual food; Q: other unusual events; PAT: patrol (non-conflict hair erection? Sniff? Bipedal? Scan? Reassurance touch? Close single file?)

KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: SJ OTHERS: 5m FOUND: NEST

Time	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)	Loc	F	SP	PT	MNK	BEH
952	LR playing with LO by LR tickling and bite									AP
959	LK grooming Pg									
1000	LK Pg TJ LR OT OU OH LO OM OL				T/24				mgB	
"	Mutual groom LK →Pg									
1008	LK leaf grooming for 40sec before he was									
	grooming Pg and after he was groomed by Pg									
1014	Handclasp mutual groom LK →Pg									Hcg
1015	LK Pg TJ LR OT OU OH LO OM OL				3/4	✓	FCP	UF	mgB	.
1020	LK grooming Pg .				"					
1030	LK Pg TJ LR OU OT				T/24				∅	
1045	LK Pg TJ LR OU OT				"				∅	
1050	Chimps separated									
1055	LR feeding MDR YL									
1058	LR ✓ feeding TRI YL									
1059	LR feeding into CAF YL									
1100	LR	LR	LO		3/21	✓	CAF	YL	∅	
1115		LR	LO		"	✓	"	"	∅	
1130		LR	LO		"				∅	

Aggression/Received aggression

Time	Aggr. ID	VD	NvD Duration	CHA	Attack 1	2	3	Vic ID	No	Av	Tn	Sb	Rt	RA	Behavioural context	T/G

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

At 15-MIN INTERVALS: Party composition, Location, Food, MNK

AP: adult play; CP: copulation; CY: carry; DR: drink; ELE; elephants; FBK: food bark; HCG: hand-clasp groom; HNY: honey; IGI: inter-group interaction; LF: leaf use; MAT: monkeys attack; PIG: pigs; PRED: predation; PTG: pant-grunt; RN: rain; RD: rain display; SOIL: eating red soil; STK: stick use; TLU: tool use; UNF: unusual food; Q: other unusual events; PAT: patrol (non-conflict hair erection? Sniff? Bipedal? Scan? Reassurance touch? Close single file?)

Estrous: 1=None; 2=Partial; 3=Full

KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: SI OTHERS: 5m AL→D FOUND: NEST

Time	Party Composition				Loc	F	SP	PT	MNK	BEH
	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)						
1131	LR (Lo) Climbed down from				CAF					
1134	LR Joined AL and OU family, he approached AL Pant ~~grunted~~ to her then AL groomed LR shortly									PTG
1140	AZ Inspected LR by smelling on her estrous.									
1145	AL OU OT	LR AZ AT OC LO		Om OL AM	15 BFR				①	
1147	Chimps climbed Into FBR making food grunts									FBK
1200	LR AL OU OT	AZ AT OC LO		Om OL AM OL	Mdg	✓	FBR	RF	①	
1215	LR AL OU OT	AZ AT OL LO		Om OL AM	"	✓	"	"	①	
1220	OU (OL) climbed from FBR									
1230	OU AL LR OT	AZ AZ OL LO		Om OL AN	4 Mdg				①	
1235	OU makes a day nest tree OL NEST, BOS Ht 6m									
1245	LR AL OU OT	AZ AT OC LO		Om OL AN	Mdg	✓	FBR	RF	⊘	
1300	LR AL OU OT	AT AZ OL LO		Om OL AN	"				⊘	
1315	OU LR AL OT	AZ AT OC LO		Om OL AN	Mdg	✓	FBR	RF	⊘	
"	LR Playing with Lo by LR pating and tickling								⊘	AP
1330	OU LR AL OT	AZ AT OC LO		Om OL AN	Mdg	✓	FBR	RF	⊘	
1345	OU LR AL OT	AZ AT OC LO		Om OL AN	"	✓	"	"	⊘	

Aggression/Received aggression

Time	Aggr.	VD	NvD	CHA	Attack			Vic	Response of victim						Behavioural context	T/G
	ID	Duration			1	2	3	ID	No	Av	Tn	Sb	Rt	RA		

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

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KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: ST OTHERS: Sm FOUND: _____

Time	Party Composition				Loc	F	SP	PT	MNK	BEH
	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)						
1355	LR grooming Lo									
1400	OU AL AZ AT OT LR OG Lo		Om OL AN		K/KA				Ø	
1410	chimps separated									
1412	LR feeding MAE RF									
1415	LR	Lo			4/13	✓	MAE	RF	Ø	
1430	LR	Lo			M/13	✓	"	"	Ø	
1445	LR	Lo			"	✓	"	"	Ø	
1450	LR feeding on MAR pith									
1500	LR	Lo			M/13	✓	MAR	pith	Ø	
1510	LR feeding MAE RF									
1515	LR	Lo			M/13	✓	MAE	RF	Ø	
1527	LR Drinking water from a tree buttress using wadges (chewed leaves)				H/2					DR TLU
1530	LR	Lo			H/2				Ø	
1533	LR (Lo) climbed into APH for feeding RF									
1543	LR	Lo			4/12	✓	APH	RF	Ø	
4	Distant calls heard from west of K-14 and LR didn't respond									

Aggression/Received aggression

Time	Aggr. ID	VD	NvD	CHA	Attack			Vic ID	Response of victim						Behavioural context	T/G
		Duration			1	2	3		No	Av	Tn	Sb	Rt	RA		

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

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KPC BEHAVIOUR

DAY: 19 MONTH: 09 YEAR: 09 KPC: 51 OTHERS: 5M FOUND: NEST

Time	Party Composition				Loc	F	SP	PT	MNK	BEH
	AMM	AFF (incl. estrous)	JMM (&inf)	JFF (&inf)						
1600		LR	LO		F/12	✓	APH	RF	⊘	
1603	LR to left feeding APH and moved through									
	branches									
1604	LR feeding CAF YL.									
1615		LR	LO		F/12	✓	CAF YL		⊘	
1620	LR feeding on brown soil from a fallen tree									
1624	It started raining								⊘	
1630		LR	LO		H/3					
1631	LR climbed into FEX for feeding RF									
1645		LR	LO		H/3	✓	FEX	RF	⊘	
1700		LR	LO		"	"	"	"	RDT MGB	
1708	LR makes a night nest, tree of nest Ole									
	Height 14m DBH 20 cm									
1715		LR	LO		H/3				RDT MGB	
1730		LR	LO		"				RDT MGR	
1745		LR	LO		"				⊘	
1800		LR	LO		"				⊘	
1815		LR	LO		"				⊘	

Aggression/Received aggression

Time	Aggr.	VD	NvD	CHA	Attack			Vic	Response of victim						Behavioural context	T/G
	ID	Duration			1	2	3	ID	No	Av	Tn	Sb	Rt	RA		

Copulations

Time	Duration	Fem	Male	Interfere?	Groom?	Scream?	Dart?	Approach:	Notes

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1705 It stopped raining
1820 OBS left the nest site