

TABLE 7 Measurements in mm of associated lower incisors and canines.

		I ₁					I ₂					I ₃			C _m			C _f			
		DMD	DLL	Hli	Hla	Hme	Hdi	DMD	DLL	Hli	Hla	Hme	Hdi	DMD	DLL	Dmax	li	la	po	DAP	IT
<u>Lopholistriodon</u>																					
<u>L. moruoroti</u>																					
Moruorot																					
KNM-MO 5	l	—	—				—	—				4.1	—	—							
	r	>3.8	>4.1				+3.8	4.9				—	—	—					7.0	5.0	
<u>Kubanochoerus</u>																					
<u>K. massai</u>																					
Gebel Zelten																					
MNHP Z 1961	r																20.5	18.3	16.8		
<u>K. minheensis</u>																					
IVPP V 6021																					
	l	13.9	15.0	23.1	>23.5	..	..	17.3	17.2	25.8	>28.0						15.1	13.6	11.2		
	r	14.4	—	—	—	..	..	16.0	18.3	—	>28.0	—	—	13.3	11.1						
<u>K. gigas</u>																					
Maerzuizigou																					
IVPP V 8502	l	18.3	22.7	>23.1	>27.9	..	..	21.1	22.6	>24.2	>28.6	..	..				35.0	27.1	18.0		
	r	17.4	23.5	>22.1	>26.5	..	..	21.5	21.5	>25.0	>28.7	..	>17.1	20.6	15.8	..		34.8	28.2	19.7	
BNNH BPV-907	l	19.3	20.8											18.2	+13.7	22.5	30.6	22.7	28.1		
	r	19.7	19.8											18.7	14.6	+21.0	33.5	22.6	28.3		
<u>Bunolistriodon</u>																					
<u>B. archidens</u>																					
Rusinga RI																					
KNM-RU 2785	l	7.9	>8.0	—	—	—	—										15.2	8.8	13.0		
	r	8.0	>8.8	—	>14.7	>9.1	>10.2	9.6	10.4	>20.0	>18.3	>10.2	>12.1				13.8	8.6	12.3		
<u>B. aff. latidens</u>																					
Munébrega I																					
IVAU 55/1051	r	..	..				..	..									..	..	..
Torralba II																					
IVAU 18/200	l	—	—				—	—					—	—	—					12.7	9.4
	r	—	—				—	—					—	—	—					12.5	8.4
Villafeliche 3																					
IVAU VL3/6	l	9.0	7.2				9.7	..													
	r	8.9	—																		
<u>B. latidens</u>																					
Veltheim																					
NSSW 99	l	10.7	+8.3	—	—	—	—	13.3	10.4	17.2	..	..	..				11.2	12.2	9.0		
	r	10.8	7.6	14.4	..	..	..											+11.8	+11.6	8.3	
Inbnd I																					
MTA AKI-3/7	l	11.8	8.3					13.6	9.1					13.5	7.7	17.3					
	r	11.4	8.1					13.6	9.4	>16.6	>16.9	..	..						
MTA AKI-3/8	r	—	—					—	—					—	—	—					
<u>Listriodon</u>																					
<u>L. pentapotamiae</u>																					
Dhok Talian 189																					
PMNH MV 31, 527	l	9.5	7.5					11.6	8.3												
	r	9.3	7.4					12.3	9.0											13.5	8.4
Kanatti Chak 5																					
BSPHGM 1956	l	10.3	8.1					12.5	9.1												
	r	10.2	>8.0																		
Chinjí																					
IM B 697	r																			11.0	6.9
<u>L. splendens</u>																					
Simorre																					
MNHP S1 155	l	11.4	8.2					12.1	10.4				..	10.3	18.3						
	r	>11.0	8.3					13.3	11.5				13.5	9.5	18.5					16.3	10.2
Villefranche																					
MNHP 4321	l							15.2	..												
	r	11.0	..					14.8	..				..	..	18.1					20.0	16.5
Inbnd I																					
MTA AKI 3/333	l	11.4	9.5					15.0	11.6	20.1	22.0	..	18.1								
	r	11.9	9.7					15.4	11.9	21.0	22.2	..	17.0								
MTA AKI 3/777	l	11.4	10.0																		
	r	11.5	10.0					13.4	11.1					+11.8	+9.5	..					
Klein Hadersdorf																					
(Frank)																					
NW 8X1944	l							15.2	10.7												
	r							14.5	10.8												
Çandır																					
PIMUZ CA I/22	l	10.7	8.3					13.5	10.0											12.0	7.6
	r	10.6	8.4					12.9	10.1					12.1	7.9	16.2				12.7	7.7
MTA —	l	12.3	9.9																		
	r																				
Locle																					
UN —	l																				
	r	12.9	9.9					>15.4	11.5											23.8	19.6
S. Quirze																					
MGSCB 30481	r	13.5	>9.4					20.1	12.1												
MGSCB 48900	l	>14.0	10.1																		
	r	14.3	10.5																		
CJFV Squ 5438-	l	15.5	10.5					19.0	12.7					>16.6	9.0	>20.1					
	r	14.8	10.5					18.0	12.1					17.0	9.0	20.1					
Hostalets																					
CJFV —	r																			22.5	17.0
Markt Rettenbach																					
BSPHGM	l												16.2	8.2	..					18.1	
	r							16.6	10.5				16.0	8.3	..					18.2	12.1

TABLE 8 Measurements in mm of associated lower deciduous molars and associated permanent molars.

		D ₂			D ₃			D ₄				M ₁			M ₂			M ₃			
		DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTm	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DTpp
<u>Nguruwe kijivium</u>																					
<u>Loncherangan 1</u>																					
KNT-LC 1/394	1				—	—	>4.2	14.0	5.4	6.1	7.3	10.7	8.5	8.6	>13.5	—	>8.4				
Songhor																					
KNT-SO 1062	1	8.5	3.1	3.8	8.9	3.5	4.5	14.0	6.0	7.0	7.5										
<u>Kubenochoerus</u>																					
<u>K. massai</u>																					
<u>Gebel Zelten</u>																					
MNHNP Z 1961	1	18.9	7.3	8.0	21.6	7.7	9.1														
<u>Bunolistriodon</u>																					
<u>B. aff. latidens</u>																					
<u>La Artesilla</u>																					
MPZ 6430	r	12.8	4.6	5.9	12.8	5.5	6.6	21.4	—	9.8	11.0	18.4	11.7	13.0							
MPZ 6431	1	13.7	5.0	6.0	13.5	5.7	7.3														
Moratines																					
MNQN —	1							21.0	..	..	10.1	17.5	..	>11.4							
<u>La Hidroeléctrica</u>																					
IPS 1143	r				—	..	—	+21.5	..	..	+11.8	19.0	12.6	12.1	—	14.4	—				
<u>B. latidens</u>																					
<u>Inhull I</u>																					
MCA AKI-3/586	1							20.6	8.9	11.3	11.0	16.4	13.1	12.1	20.3	16.6	15.9				
<u>B. lockharti</u>																					
<u>Pellecahus</u>																					
NMB GB 1382	1							—	—	—	11.0	+20.7	14.1	+14							
<u>La Romieu</u>																					
UCBL 320268	1				14.3	5.8	6.9	>20.4	8.7	9.8	11.1										
<u>Langenau 1</u>																					
SMS 40684	1				13.2	..	6.6	23.3	..	..	11.2	+19.1	..	..					
<u>Pontlevoy</u>																					
MNHNP FP 1015	1				13.0	5.6	6.5	22.3	8.9	10.6	11.3										
<u>Listriodon</u>																					
<u>L. pentapotamiae</u>																					
<u>Kalinal</u>																					
BSPHGM 1956 II 44	r							—	—	—	10.1	15.8	—	11.9	19.7	—	15.2	—	17.7	16.1	—
<u>L. splendens</u>																					
<u>Çandır</u>																					
MCA —	1				13.2	6.8	7.4	22.9	9.9	11.2	12.7	20.0	14.0	14.6	23.6	—	17.8				

TABLE 9 Measurements in mm of associated lower molars and premolars.

		P ₁			P ₂			P ₃			P ₄			M ₁			M ₂			M ₃					
		DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DTpp		
<u>Nguruse kijivium</u>																									
<u>Rusinga</u>																									
KNM-RU 2770	r												12.6	9.7	9.9	14.4	12.0	11.5	18.6	12.3	9.9	7.8			
Rusinga-RIA																									
KNM-RU 2774	l															15.9	12.0	11.6	—	12.1	10.8	—			
<u>Songhor</u>																									
KNM-SO1059/1123	r															13.8	10.2	9.7	—	10.3	—	—			
KNM-SO1126/1122	l															13.8	10.3	9.7	—	11.5	9.9	—			
<u>Lopholistriodon</u>																									
<u>L. moruoroti</u>																									
<u>Moruorot</u>																									
KNM-MO 5A	r			4.9	2.4	2.7	6.9	2.9	3.5	7.7	4.6	>4.0	8.6	—	6.1	10.1	—	>6.8	—	7.8	7.7	—			
KNM-MO 5B	l												—	—	6.1	10.6	6.9	7.4	14.0	8.0	7.8	5.8			
<u>Maboko</u>																									
KNM-MB 10318	l												8.4	5.0	5.0	10.2	6.5	6.2							
KNM-MB 10332	l									6.4	>3.4	3.6	7.4	4.7	5.1	9.2	6.2	6.2							
<u>L. pickfordi</u>																									
<u>West Stephanie-Buluk</u>																									
KNM-WS 115	l															13.8	8.9	9.0	17.7	>10.0	>8.8	>6.8			
KNM-WS 115	r															13.5	8.6	9.2	18.3	10.7	9.5	6.8			
<u>L. kidogoana</u>																									
<u>Ngorora</u>																									
KNM-BN 1714	l												—	8.0	—	—	+8.0	—							
<u>L. akatidogus</u>																									
<u>Loc. ?</u>																									
KNM-X 208	r															19.9	>12.9	13.8	27.6	14.8	14.4	13.1			
<u>Kubanochoerus</u>																									
<u>K. maryungui</u>																									
<u>Buluk</u>																									
KNM-WS 12595	l			30.4	15.0	16.6	31.0	20.5	21.1	28.3	22.5	22.9	+26	+20.5	—	32.2	30.3	27.8	46.1	30.8	24.4	18.3			
	r			31.0	15.2	16.7	31.1	21.0	21.7	28.9	22.9	22.4	—	—	>22.5	32.0	29.7	27.5	45.9	30.9	24.6	18.7			
<u>K. mancharensis</u>																									
<u>Nyakach-Kaimogool E</u>																									
KNM-NC 9807	r															47.2	>40.0	37.5	—	42.4	—	—			
<u>K. massai</u>																									
<u>Gebel Zelten</u>																									
MNHP Z 1961	l			26.4	11.8	>10.7	28.9	14.0	13.6	27.8	14.8	>15.5	23.0	—	—	29.6	>22.0	>21.7	47.2	24.6	22.0	18.5			
<u>holotype</u>																									
MNHP Z 1961	l															+30.3	<24.8	+23.6	45.8	25.0	21.8	17.6			
MNHP Z 1961	l			24.4	11.2	11.3	25.4	13.8	13.4																
MNHP Z 1961	l															27.6	—	22.5	>43.0	23.8	21.9	—			
MNHP Z 1961	l												26.5	19.8	19.9	30.1	24.3	25.0							
MNHP Z 1961	r			27.3	13.6	12.9	28.9	16.2	+16.9	26.8	+18.3	—	—	—	—				+48.9	—	24.4	—			
MNHP Z 1961	r															31.6	24.6	24.2	46.0	26.8	22.7	17.9			
MNHP Z 1961	r														19.2	29.4	22.3	23.8	48.0	26.5	23.3	18.8			
MNHP Z 1961	l			<26.5	11.0	12.5	26.7	13.2	13.9							31.0	22.3	23.9							
MNHP Z 1961	l			—	9.6	>7.8	>22.3	11.6	—	24.3	14.8	19.7	26.1	18.0	19.7	30.7	>23.2	>24.6	47.5	27.0	24.0	17.0			
MNHP Z 1961	l												26.7	19.3	20.6	31.6	24.8	24.3	—	25.5	—	—			
MNHP Z 1961	r									25.5	18.4	18.5	30.5	22.6	22.8										
<u>K. minheensis</u>																									
<u>Nanhawangou</u>																									
IVPP V 6021	l	13.1	8.3	5.4	26.3	13.5	14.2	27.5	13.9	15.5	27.5	16.2	18.8	27.7	19.8	20.8	32.0	25.5	25.7	>49.6	28.8	24.4	20.6		
	r				27.0	12.9	>13.8																		
<u>K. gigas</u>																									
<u>Maerzuizigou</u>																									
IVPP V 8502	l	19.3	10.3	8.4	29.7	12.8	14.3				>23.5	—	21.9	>29.9	>20.8	22.9	37.8	28.8	28.2	61.1	32.4	29.4	23.5		
	r	—	—	—	29.6	13.0	14.7				>31.9	19.2	21.8	>29.9	>20.8	22.9	37.8	28.8	28.2	61.1	32.4	29.4	23.5		
<u>BMNH BPV-...</u>																									
BMNH BPV-900	l	>17.0	29.5	..	13.6	32.6	32.2	31.4	39.3		
	r	+15.6	—	—	—	32.6	32.1	—	40.0	55.6		
BMNH BPV-907	l	17.9	>8.7	9.2	>26.2	12.7	14.0	33.2	15.5	17.6	32.2	19.1	22.0	—	—	42.5	30.7	>29.6	61.4	32.9	29.4	24.8			
	r	16.7	9.2	>8.5	>27.5	12.6	14.0	30.0	14.4	16.8	32.8	18.8	21.4	31.3	>21.8	23.8	41.2	29.7	29.3	63.7	33.2	29.2	24.9		
BMNH BPV-905	l	18.9	9.6	7.4				30.9	15.6	17.8	32.0	19.3	21.2	29.9	22.1	23.7	37.8	27.9	28.9						
	r				27.5	13.0	14.1	31.8	15.3	18.1	32.4	19.4	20.5	—	—	41.0	28.6	29.0	64.1	32.2	29.7	24.3			
BMNH BPV-906	r															—	—	25.2	38.0	30.6	30.8	58.8	33.3	30.3	25.2
BMNH BPV-908	l															—	—	25.2	38.2	>29.7	31.0	58.5	33.5	29.9	24.1
BMNH BPV-911	l	22.5	10.0	11.8	31.0	13.0	14.9	31.5	14.5	17.2	33.2	16.5	19.0	33.1	21.2	23.0	38.9	29.0	27.9	57.8	32.5	28.9	24.2		
	r	23.4	9.5	12.0	32.6	14.0	14.2	32.2	15.0	17.0	32.9	17.8	19.1	34.7	22.2	22.8	37.9	28.0	28.5	58.0	31.7	29.0	24.0		
<u>Hamalagai</u>																									
IVPP —	r													30.1	20.6	21.6	37.4	26.9	25.8						
<u>Bunolistriodon</u>																									
<u>B. anchidens</u>																									
<u>Rusinga RI</u>																									
KNM-RU 2785	l	>9.4	—	5.5	>16.3	>7.3	8.0	18.6	—	—	17.8	11.4	11.3	18.6	14.7	14.1	20.8	>17.1	16.5	31.7	19.1	16.6	12.4		
	r	10.1	5.8	6.1	17.9	19.2	..	11.3															
<u>B. jeanneli</u>																									

2	P1			P2			P3			P4			M1			M2			M3			M4			
	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	
Fategad																									
IM 18098	1									18.4	13.0	14.0	22.0	17.2	16.5	23.3	20.6	18.8	33.4	19.9	17.5	13.5			
<u>B. aff. latidens</u>																									
Quinta da Farinheira																									
CEPUNL 1	1												17.9	>13.2	13.8	20.6	17.5	16.3	32.9	19.1	16.8	12.6			
CEPUNL 2	1												18.3	14.1	14.4	21.1	17.8	17.7	32.9	20.0	17.3	12.9			
CEPUNL 3	r									—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quinta Grande																									
CEPUNL 938	1											15.8	>13.6	>14.5	20.4	17.6	>18.2	31.2	19.5	17.6	13.6				
Olival da Suzana																									
CEPUNL 16	r						>16.5	..	>9.8	18.0	..	13.3	—	—	—	22.2	>17.8	17.5	32.9	21.2	18.1	13.9			
Casal das Chitas																									
CEPUNL 46	r															22.2	17.5	16.9	32.3	22.2	18.8	14.4			
Quinta da Silvéria																									
CEPUNL 41	r									>16.2	..	10.7	<18.2	—	13.6	21.1	16.3	16.4							
La Artesilla																									
MPZ 6435	1						16.1	..	9.8	15.4	..	11.4	>14.5	>11.6	>12.3										
MPZ 6436	r						15.7	..	9.7	15.7	..	11.8	—	—	—	19.3	16.3	16.8	30.5	15.5	15.7	13.3			
Armantes I																									
IVAU 41/513	1															>14.5	12.8	13.7	18.8	17.3	17.5				
Munibrega I																									
IVAU 55/1049	1			—	—	7.7	16.4	8.3	10.5	16.5	11.9	13.4	17.7	13.5	>13.5	20.8	16.9	17.4	34.8	18.5	17.3	12.9			
IVAU 55/1050	r						—	—	>10.4	16.0	11.6	12.5	17.3	13.4	13.8	21.5	16.5	16.9	33.7	18.3	16.3	12.7			
IVAU 55/1051	1	—	—	—	—	—	15.1	..	8.6	16.8	..	10.6	—	—	—	20.8	..	16.3	—	19.5	—	—			
	r	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.6	—	—	—	—	—	—			
Torralba II																									
IVAU 18/200	1	—	—	—	—	—	+16.6	..	9.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	r	8.3	..	5.0	—	—	—	—	—	>16.6	11.6	11.0	+17.5	<14.8	<15.1	<19.8	17.0	17.5	+31.2	18.8	<17.2	13.4			
La Hidroeléctrica																									
IPS 1142	r															22.8	16.5	18.1	34.7	19.3	18.3	..			
Montabuzard																									
MNHNP Or 68	1				..	..	..	15.2	..	..	16.8	..	..	—	—	—	20.8	16.3	15.5	—	..	..	—
<u>B. latidens</u>																									
Veltheim																									
NSSW 99	1				15.2	6.8	7.8	16.0	8.8	9.9	15.2	9.9	11.3	16.7	12.6	12.7	20.1	15.9	15.8	30.1	17.7	15.1	12.9		
					15.8	5.9	8.4	15.9	8.6	9.6	15.1	10.3	11.3	16.7	12.6	12.4	19.3	14.4	15.8	29.5	17.4	15.3	12.8		
Inbnd I																									
MIA AKI-3/6	1									15.4	..	9.7	—	12.5	—	18.5	14.8	14.9	30.7	17.7	15.8	12.5			
MIA AKI-3/8	r																								
MIA AKI-3/11	r															16.0	12.1	—	19.9	15.8	15.1	29.9	17.6	16.1	12.8
<u>B. lockharti</u>																									
Pellecahus																									
UCEL 320302	1															19.8	15.5	15.6	32.2	17.3	15.5	12.1			
UCEL 320309	1															21.9	—	16.8	—	17.4	16.2	—			
La Romieu																									
UCEL 320292	1						16.8	8.8	10.7	16.6	11.0	12.1	16.6	>12.4	13.4	19.0	15.2	16.3	31.9	17.2	15.9	12.2			
UCEL 320292	r						17.5	8.7	11.0	17.2	11.2	12.4	16.8	12.6	13.3	19.3	15.5	16.5	32.8	17.4	16.3	12.3			
UCEL 320291	r				15.0	6.6	8.0	16.8	7.7	10.2	17.7	11.2	11.6												
UCEL 320299	r															21.8	+18.0	17.9	36.2	18.1	17.7	12.9			
UCEL 320299	1															20.3	17.3	17.1	—	19.8	16.9	—			
UCEL 320275	1												17.5	12.6	13.5	20.5	16.2	17.4	36.1	18.6	16.8	13.8			
UCEL 320275	1								15.5	..	11.8	>14.2	—	—	—	18.2	>14.9	15.1							
UCEL 320275	1											20.7	13.7	14.3	23.2	18.0	17.6								
Baigneaux																									
NB SO-3022	1				16.4	7.7	9.3	18.3	9.5	12.8	—	—	—	—	—	—	18.3	—	32.9	19.3	17.5	13.1			
	r				16.3	8.0	9.3	18.6	9.4	13.1	—	—	13.8	—	—	—	21.2	18.2	18.1	33.8	19.4	17.4	13.6		
Chevilly																									
MNHNP CHE 30	1															20.6	17.5	18.4	32.5	16.6	17.6	13.2			
MSND 260 +	—	r														23.0	17.4	18.5	35.4	20.0	18.6	13.8			
Arraya																									
MNHNP —	1				17.1	8.1	>9.3	17.8	10.3	11.5	17.0	12.4	13.3					21.3	18.2	17.7	32.8	19.3	17.8	12.2	
Pontlevoy																									
MNHNP FP 288	..															23.2	..	19.0	33.2	21.2	..	..	
MNHNP FP 1062	r												19.6	—	15.4	21.1	17.9	18.8							
Tavers																									
CIMD —	1									18.8	12.1	13.1						22.3	18.5		35.9	21.0	19.2	14.4	
<u>B. akatikubas</u>																									
Majiwa																									
KNM-MJ 9773	r															20.8	15.6	15.7	—	17.6	16.9	—			
<u>B. intermedius</u>																									
Yehuli Juanzhi																									
IVPP V 9519	1															20.0	16.9	16.5	33.5	18.8	17.0	13.9			
	r												—	—	13.6	22.0	17.1	16.8	32.0	18.9	17.0	13.2			
Jinzuizhigou																									
IVPP V 9520	r															>21.6	16.8		35.8	19.2	18.2	13.7			
Maerzuizigou																									
IVPP V 9521	r						17.0	7.7	10.2	16.4	11.2	12.3	18.6	13.5	13.3	23.2	17.0	16.5	34.0	18.7	17.2	14.3			
BMNH BPV-928a	1															—	16.5	—	33.9	19.2	17.4	13.8			
BMNH BPV-928b	1															—	16.2	16.9	33.0	19.4	17.3	14.0			
BMNH BPV-929	r						16.8	7																	

	3	P ₁			P ₂			P ₃			P ₄			M ₁			M ₂			M ₃			DTP			
		DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP	DAP	DTa	DTP				
HGSP 8311/1550 & 1406	1											17.3	11.5	12.8	17.9	14.1	14.6	22.6	18.3	18.4	33.8	19.2	17.0	12.7		
<u>Listriodon</u>																										
<u>L. pentapotamiae</u>																										
Kanetti																										
IVAU KA 79	r							18.0	10.8	11.4	18.6	12.4	13.6	—	—	—	23.5	17.6	18.3	—	20.6	19.2	—			
Dhok Tallian 189																										
GSP 4413	1														—	—	>14.3	21.3	16.6	16.6	+33	18.2	16.1	12.8		
GSP 4413	r																20.4	>16.5	16.7	33.9	18.6	16.4	12.8			
GSP 4478	r																23.0	18.3	>16.6	—	20.1	17.9	—			
PMNH Mus. 31/ MV 31/527	1	7.2/4.6	3.8	14.0	7.0	7.9	14.6	8.7	10.0	17.0	11.4	12.1	17.3	>12.9	13.3	21.6	16.5	16.7	36.9	19.4	17.9	12.6				
	r	7.6/4.4	3.4	13.7	—	>7.5	15.6	8.9	9.6	17.0	11.7	12.3	+16.8	>13.4	>13.9	22.2	16.9	16.6	36.9	20.0	18.1	12.5				
Mochi Wala																										
IVAU CHO 125	1							14.1	7.5	>9.4	14.1	10.2	>10.6													
Marianwala-Kas																										
BSPHGM 1956 II 42	r																—	—	—	+27.5	—	14.8	10.6			
BSPHGM 1956 II 43	1																—	>12.1	13.1	—	16.6	—				
BSPHGM 1956 II 109	r												14.8	—	11.8	18.4	14.3	14.5								
Burriwala																										
BSPHGM 1956 II 104	1							15.0	—	11.5	15.6	—	—	20.7	16.4	—										
Kanatti Chak 5																										
BSPHGM 1956 II 40	1																									
BSPHGM 1956 II 41	r							14.5	9.1	11.1	15.2	10.6	12.2													
Hessuwala																										
BSPHGM 1956 II 46	r																20.5	15.7	15.2	31.7	17.7	15.7	11.4			
Janda Wala																										
BSPHGM 1956 II 41	r							15.1	9.1	9.8	16.3	11.0	12.2	17.5	13.3	13.3	21.8	16.4	16.4	33.0	18.5	17.1	12.6			
BSPHGM 1956 II 43	1																—	—	17.5	34.9	19.4	17.8	12.2			
Kalinal																										
BSPHGM 1956 II 47	r													17.9	12.9	12.8	22.0	15.0	16.6							
BSPHGM 1956 II 108	1													>12.5	—	>11.5	+19.6	15.2	15.0							
Kundal Nala 1																										
BSPHGM 1956 II 87	1													14.5	>10.9	11.8	18.6	14.2	14.5	—	16.6	15.8	—			
Katli																										
BSPHGM 1956 II 45	r							>11.3	7.7	9.0	14.5	9.8	10.8	16.2	11.3	11.7	20.7	—	15.2							
Chinji loc. 76																										
GSP 9663																	18.0	15.8	15.0	28.5	17.0	15.7	9.8			
Chinji																										
IM B 697	1							>15.1	10.3	10.8	17.3	10.4	12.5	19.1	14.2	14.0	22.0	17.6	17.0	35.1	20.2	+16.2	13.0			
	r							14.9	8.5	8.2	—	9.9	—	—	—	19.2	13.9	14.9	21.2	17.4	17.1	—	20.2	—		
HGSP 8122																										
HGSP 8122/257	r							<16			14.5	10.1	10.6	17.4	>11.6	>12.9	21.2	15.1	15.7	34.1	17.2	15.7	10.0			
<u>L. splendens</u>																										
Simorre																										
MNRNP Si 155	1							13.0	..	8.0	—	..	9.8	16.8	..	13.1	15.6	..	14.0	19.3	..	16.6	31.3	18.6
	r							12.7	7.4	8.4	>14.0	>9.4	—	15.8	12.1	12.8	16.6	—	13.8	19.7	16.4	17.7	30.9	19.4	17.4	10.5
MNRNP SI 162	r							14.9	7.3	8.4	16.2	9.3	10.1													
Villefranche d'Astarac																										
MNRNP 4321	1							—	—	—	16.3	..	9.0	16.0	..	11.6	15.5	..	12.7	—	—	—	—	—	—	—
	r							+14.0	..	8.0	—	..	9.0	16.6	..	11.9	15.6	..	14.0	—	..	+15.1	30.8	19.0
MNRNP VAS 11	1													16.3	10.8	11.5	—	—	12.6	20.1	15.8	16.2				
MNRNP VAS 12	r													17.7	11.5	12.8										
MNRNP VAS 30	r							—	—	8.7	15.9	8.4	9.6													
L'ile-en-Dodon																										
OMF cast																										
PMNH 33577	..							15.7	8.8	9.8	16.6	11.1	11.7	17.5	13.4	13.7	19.4	15.7	16.1	30.5	18.7	16.8	10.7			
Sansan																										
MNRNP Sa 4314	1										16.0	..	—	17.0	..	13.3	19.2	..	12.2							
MGL Se 163	1																21.7	16.6	16.3	31.9	19.0	16.5	11.0			
NMB Se 157	r																19.2	16.1	15.5	31.8	18.6	16.6	11.3			
La Gruas																										
NMB DG 33+34	1																21.3	16.8	17.3	33.5	20.2	18.3	11.5			
Inhdi I																										
MIA AKI 3/41	r							17.2	9.6	10.1	17.3	12.8	13.7	—	—	—	22.3	18.6	20.0	35.4	21.4	19.7	14.0			
MIA AKI 3/42	1										16.8	12.6	13.8	—	—	+14.9	21.9	18.6	20.3	35.6	21.2	19.6	14.0			
Paşalar																										
PDIFAU D920	1																21.6	16.8	16.6	35.4	19.3	17.3	11.8			
PDIFAU E89.10	..																21.3	17.0	16.5	35.2	19.9	17.7	13.1			
PDIFAU E614	r																									
PDIFAU G589	1													17.4	13.4	13.3	21.4	17.2	16.7	33.1	19.9	17.9	12.3			
PDIFAU G775	1							14.5	7.8	9.0	18.8	12.2	13.3	17.8	13.1	13.4				24.8	19.4	18.7	39.7	21.5	—	12.0

4	P1			P2			P3			P4			M1			M2			M3				
	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DTp	
Klein Hadersdorf																							
(Frank)																							
NW 8X1944	1						16.2	8.9	9.3	16.3	11.4	12.5	16.0	12.6	13.3	19.9	16.2	15.8	32.9	18.6	16.5	10.7	
	r			12.9	7.4	7.9	15.5	9.0	9.2	15.1	11.4	12.3	17.1	12.6	12.9								
Çandır																							
PIMIZ CA I/22	1			13.4	7.0	7.8	16.4	8.6	10.2	15.4	11.4	13.6	18.5	13.7	15.0	22.0	17.8	19.0	33.6	20.5	19.8	13.5	
	r			14.0	7.2	7.9	16.7	8.8	10.8	16.3	11.0	13.8	18.4	13.7	15.0	22.0	17.8	19.1	33.7	20.5	19.7	12.8	
MTA —	1			12.8	7.6	7.2	15.3	9.5	10.2	17.2	12.6	13.2											
	r			13.1	7.8	8.1	15.9	7.8	10.6	—	12.4	—	17.1	13.8	15.0	22.1	18.5	18.1	—	19.6	18.4	—	
MTA —	r			14.0	7.8	8.7	16.6	9.6	11.6	18.8	13.5	—											
MTA —	1									15.9	11.0	12.5	18.4	13.7	14.5	22.4	17.3	16.7					
Mürsingen																							
NMB TD 691	1															—	16.8	—	32.6	18.7	16.9	11.9	
Paracuellos V																							
MNOCN PA V569	1						16.9	9.2	10.1	18.5	>12.3	—			22.6	17.6	17.5						
Manchones I																							
IVAU MA 105	r									—	—	—	21.3	18.0	17.7								
IVAU MA 120	r						—	9.0	8.8	>17.0	11.5	>12.8											
IPS 1100	1															21.3	18.1	17.8	34.6	—	18.4	12.8	
Arroyo del Val IV																							
IVAU AR IV 2	r						—	10.1	>10.6	17.4	12.0	12.5				—	—	—	32.1	18.5	17.7	12.5	
IVAU AR IV 3	1						—	—	11.6	18.1	12.3	14.2	—	—	—	—	—	16.8	34.5	19.3	16.9	14.6	
IVAU AR IV 4	r						18.0	10.4	11.4	17.9	12.8	14.0	—	—	—	22.4	17.6	16.8	34.3	19.7	17.7	14.0	
IVAU AR IV 6	r									17.6	12.5	12.2	—	—	>13.0								
IVAU AR IV 87	1												—	—	—	22.3	—	18.0	33.5	—	—	14.2	
IVAU AR IV 88	1						16.8	9.5	10.7	16.9	11.9	12.3	16.8	—	13.4	20.7	>17.1	16.8	30.7	18.4	17.5	13.0	
IVAU AR IV 89	r												—	—	—	22.7	18.8	18.1	—	—	—	—	
MPUZ AV-57	1												20.0	13.2	13.5	22.4	16.4	16.5	—	18.2	—	—	
RGM 263.035 -																							
263.040	1			16.6	9.2	9.9	17.9	11.1	11.2	19.3	12.9	13.4	—	—	13.7	22.2	18.5	17.5	33.8	20.6	19.0	14.3	
RGM 263.103	r												—	—	13.5								
RGM 263.220	r									+16.0	—	>9.7	20.0	13.4	13.4	22.2	16.2	16.5	30.9	—	17.5	+13.3	
MNOCN —	.			16.5	..	10.5				16.3	..	12.2	18.1	..	14.2	22.5	..	17.2	34.4	20.1	..	..
Merisor (west slope Mendru)																							
HGSB Ob 14	1									17.2	13.8	13.6	>17.5	—	13.6	23.6	18.3	17.6	—	—	—	12.4	
	r						17.0	10.5	12.2	18.0	14.2	13.4							37.0	20.5	18.7	13.0	
Loretto																							
NW SK 1072	1			<17.7	..	..	..	..	..	+16.7	..	..	+19.0	..	..	+22.7	..	+19.2	36.5	..	19.6	12.7
	r			16.0	..	..	18.2	9.9	10.6	18.4	14.9	14.2	—	—	—	23.8	19.6	18.7	34.7	21.3	20.1	12.8
La Grive																							
MGL LGr 712	1															21.1	16.9	17.1	30.9	—	17.3	10.2	
MGL LGr 722	r						16.1	9.1	11.2	17.2	12.7	11.6	17.7	14.0	13.4				—	19.3	17.1	—	
(composite)																							
MGL LGr 735	r															—	—	19.1	35.8	21.4	20.6	11.7	
Cerro del Otero																							
MNOCN NM 18001	r															25.4	19.1	19.8	35.4	21.9	19.3	14.2	
MNOCN NM 18002	1															25.8	19.5	19.6	36.5	21.0	19.2	14.0	
S. Quirze																							
IPS VP 1025	1			14.2	..	7.2	16.0	..	10.0	17.2	..	13.0	—	—	—	20.8	..	18.6	34.0	19.5	..	..
Escanecrabe																							
MNHP HGP 18	1									17.9	13.0	14.1	18.8	14.6	14.5	23.8	19.6	19.2	36.2	21.9	19.0	10.9	
MNHP HGP 19	r									17.3	12.9	14.0	18.9	14.6	14.2	23.1	19.5	19.1	36.1	21.9	19.3	10.6	
Wien Heiligenstadt																							
NW SK 1666a	1						14.1	9.2	9.1	15.6	12.6	12.3	17.5	13.7	13.6	21.0	17.7	16.9	33.9	19.3	18.1	11.1	
	r															21.3	17.7	16.8	34.0	19.5	17.6	10.6	
Castell de Barberà																							
IPS 1955	1															22.2	17.9	17.2	35.2	19.9	17.9	10.4	
IPS —	1			12.7	..	8.0	15.4	..	10.3	16.5	13.0	11.2	18.7	14.4	12.5	21.8	18.3	17.3	30.5	20.4	17.8	..	
Hostalets																							
CJFV —	r			13.7	7.5	8.0	16.5	9.1	10.3														
CJFV —	1									—	—	—	>15.4	—	—	20.4	—	—	—	—	—	17.5	10.6
CJFV —	1						15.4	..	..	16.7	..	..	17.1	..	..						
MGSCB 48506	r									18.7	13.0	14.3	18.9	>13.5	>13.9	23.1	18.8	17.9					
Markt Rettenbach																							
BSPHGM	1			13.2	7.6	8.5	15.6	9.5	11.6	17.2	13.5	13.5	>17.4	—	—	13.1	19.3	11.8	11.9	31.9	19.1	18.2	12.2
1929 I 47	r			13.6	7.5	8.8	15.9	9.6	11.3	18.0	13.6	13.9	17.7	—	—	13.2	21.8	16.8	17.1	31.9	19.2	18.6	12.3

TABLE 12 Measurements in mm of associated upper molars and premolars.

	P1			P2			P3			P4		M1			M2			M3			
	DAF	DLA	DTp	DAF	DLA	DTp	DAF	DLA	DTp	DAF	DL	DAF	DLA	DTp	DAF	DLA	DTp	DAF	DLA	DTp	DTpp
<u>Nguruwe kijivium</u>																					
Songhor																					
KNM-SO 1118																					
										9.2	10.3	11.4	10.5	10.6	14.2	12.7	12.3				
<u>Lopholistriodon</u>																					
<u>L. moruoroti</u>																					
Moruorot																					
KNM-MD 9																					
						6.9	4.6	6.4	6.7	7.8	9.0	8.8	9.1	10.4	10.5	>9.8					
Arrisdraft																					
KNM-ZP 1390 cast																					
SAM-PQ AD 136																					
									6.4	8.3	8.9	>8.9	9.2	10.8	10.5	10.2	11.3	10.3	8.2	..	
<u>L. akatidogus</u>																					
Fort Ternan																					
KNM-FT 3319																					
									11.2	12.1	14.8	13.4	13.5	+17.7	—	—	21.2	>17.2	15.3	..	
<u>L. kidogosana</u>																					
Ngorora D, 2/10																					
KNM-BN 992																					
l						9.3	5.9	9.0	9.4	9.1	12.0	8.8	9.9	14.8	11.4	11.9	16.4	—	12.0	..	
r			9.5	5.3	8.2	9.9	5.9	9.2	8.8	8.7	12.0	8.8	10.2	15.0	>11.5	12.0	17.6	12.8	11.8	..	
<u>Kubanochoerus</u>																					
<u>K. khinzikebirus</u>																					
Gebel Zeltten 6424/92																					
KNM-ZP-1389 cast																					
l	>28.6	—	16.7	38.5	22.6	22.3	35.4	24.9	26.9	27.9	33.8	34.1	32.0	35.3	42.9	43.5	41.8	58.6	47.1	44.5	20.1
<u>K. massai</u>																					
Gebel Zeltten																					
MNHP Z 1961																					
l	21.2	11.0	9.7																		
r	21.6	10.5	9.4	26.1	13.8	18.7	26.2	17.1	23.2	20.9	26.9	21.8	27.6	29.4	32.8	34.7	33.0	41.0	34.4	29.4	13.7
MNHP Z 1961																					
r												26.1	22.9	24.3	29.2	>26.2	27.4				
MNHP Z 1961																					
r												25.9	+24.7	<25.6	31.5	>30.4	>28.3				
<u>K. gigas</u>																					
Quantougou																					
IVPP cast type																					
l				31.4	18.9	>22	29.5	22.3	—	24.0	28.5	28.8	26.9	29.9	36.0	36.2	36.4	—	36.9	—	—
<u>Maerzuizigou</u>																					
IVPP V 8501																					
l	>17.5	9.9	12.5	29.7	17.2	25.0	32.0	20.8	27.5	22.9	27.9	30.9	28.3	30.7	39.6	36.7	35.6	48.1	37.5	36.7	+23.2
r	17.4	10.1	12.8	29.2	16.6	24.7	31.7	21.4	24.5	25.8	28.7	30.5	28.6	30.0	39.5	36.4	36.0	47.5	38.0	34.9	+21.6
ENHM BPV-900																					
l	>18.0	..	..	29.5	16.3	22.1	28.7	+19.5	26.2	25.2	28.7	28.1	..	..	40.1	..	..	..	..	..	..
r	—	—	—	..	..	..	29.7	16.5	22.5	25.3	..	+29.2	..	..	40.5	..	..	..	..	..	..
ENHM BPV-901																					
l	18.9	9.1	11.0	—	—	—	29.9	19.0	24.3	24.4	25.3	31.5	28.0	28.9	37.9	34.6	34.3	47.4	37.6	36.9	24.8
r	19.4	10.6	9.2	—	—	—	29.8	19.2	23.5	23.7	24.9	31.6	27.0	29.3	37.9	34.2	33.5	46.2	37.1	37.3	20.6
ENHM BPV-902																					
l				26.9	16.1	21.6	27.8	19.0	25.7	24.5	25.8	30.6	27.5	28.9	37.7	34.1	34.3	42.2	37.4	33.1	..
r	18.9	<10.3	10.7	27.2	16.9	21.5	27.5	20.7	23.6	24.2	26.5	30.9	26.9	28.1	37.6	34.0	33.9	44.0	37.7	33.9	..
ENHM BPV-903																					
l	21.0	10.1	12.4	27.2	15.8	>22.7	31.7	19.2	26.3	25.7	28.0	+34.2	29.5	<32.4	38.2	39.0	37.5	57.8	41.6	37.6	22.7
r	>20.3	10.4	14.6	>29.8	15.9	21.4	31.5	19.0	26.1	25.5	27.5	33.2	+30.7	32.0	41.1	38.6	38.1	58.2	43.1	38.2	25.4
ENHM BPV-909																					
l	20.4	10.9	12.9	30.6	17.0	22.7	32.1	20.3	25.1	25.9	26.1	32.2	—	31.6	40.5	38.4	37.2	54.1	41.6	35.3	18.7
r	20.2	10.1	12.8	30.8	17.1	22.1	30.7	20.0	26.3	25.0	28.3	31.9	30.4	31.8	39.4	37.0	37.1	53.0	39.7	35.0	21.0
ENHM BPV-910																					
l	19.7	10.2	9.1	27.1	16.5	21.5	31.2	21.8	26.5	25.0	27.0	31.5	34.5	—	40.5	33.0	33.5	53.6	37.0	31.0	..
r	19.0	11.0	9.5	27.8	18.0	21.7	30.0	20.0	27.0	23.6	27.5	30.5	34.0	32.5	39.5	33.0	33.0	54.0	38.0	32.0	..
<u>Buolistriodon</u>																					
<u>B. affinis</u>																					
<u>Bugti</u>																					
IM B 528																					
r										13.5	16.2	15.8	15.5	16.3							
<u>B. anchidens</u>																					
Rusinga Rl																					
KNM-RU 2780																					
l			19.7	9.7	11.6					14.3	17.7	19.0	18.3	20.3	21.3	—	22.1	28.6	25.3	23.2	9.7
KNM-RU 2781																					
r										13.9	16.3	18.3	18.2	19.3	21.0	21.6	+22.0	28.0	25.2	23.3	9.4
KNM-RU 2782																					
l						—	—	15.1	13.8	16.0	18.5	18.2	19.4	20.7	21.7	>21.8					
<u>B. jeanneli</u>																					
Moruorot																					
MNHP 1933-9																					
(holotype)																					
l						21.0	14.3	<16.7	16.1	19.7	21.1	21.1	20.6	23.3	25.0	22.9	27.5	23.8	20.5	..	
r						20.8	14.6	16.8	16.0	19.6	21.3	20.1	20.1	23.8	24.2	23.2	28.7	23.6	20.6	..	
<u>B. sp.</u>																					
Baragoi BAR																					
KNM-BG 14778																					
l										—	—	15.3	—	16.3	—						
<u>B. aff. latidens</u>																					
Quinta da Farinheira																					
CEPUNL 4																					
r										13.8	16.9	16.7	17.7	17.9	20.3	23.7	22.4	29.5	24.9	21.3	..
CEPUNL 6																					
r			14.9	..	10.7	16.4	..	14.4													
Quinta da Raposa																					
CEPUNL 35																					
..										—	—	—	—	20.7	22.3	22.6	26.1	22.5	20.7	..	
Quinta Grande																					
CEPUNL 29																					
														20.9	22.7	21.5	27.9	23.8	21.3	..	
Quinta das Pedreiras																					
CEPUNL 55																					
r														20.8	20.8	19.9	24.0	22.1	17.7	..	
<u>La Artesilla</u>																					
MPZ 6450																					
l										12.5	15.0	16.3	15.7	15.6							
MPZ 6451																					
r															>18.8	>16.5	19.1	>24.4	21.6	18.5	
MPZ 6452																					
l															20.0	—	19.4	+25.2	20.9	15.3	
MPZ 6453																					
r						16.0	..	15.4	12.7	15.4											
MPZ 6457																					
l	8.6	5.1	5.2						13.9	15.9	18.4	17.2	17.1	21.3	20.9	21.3	26.2	21.9	19.0	11.6	
MPZ 6459																					
r				16.0	9.8	—	16.5	11.1	—												
<u>B. latidens</u>																					

	p1	p2			p3			p4		M1			M2			M3				
		DAP	DTa	DTp	DAP	DTa	DTp	DAP	DT	DAP	DTa	DTp	DAP	DTa	DTp	DAP	DTa	DTp	DTpp	
Sigmaringen																				
PIMUZ A/V 115	r									16.8	16.3	16.1	20.3	19.1	19.4					
Inhold I																				
MTA AKI-3/9	1							13.2	15.0	—	—	—	21.4	19.6	21.3	+26.1	<23.7	—	—	
MTA AKI-3/166	r												21.4	21.3	21.1	26.0	23.5	18.4	—	
MTA AKI-3/780	1						15.7	9.0	14.8	13.6	14.4	16.9	16.3	16.3	—	—	26.6	20.9	18.9	10.8
	r		11.4	6.5	9.1	15.7	9.0	14.6	13.3	13.5	17.0	16.2	16.5	—	20.9	—				
Schlatt																				
NMB OSM 1060 cast	r									+18.2	—	16.4	18.5	19.3	>19.1	22.8	20.5	17.9	..	
<i>B. lockharti</i>																				
<u>Pellecahus</u>																				
UCBL 320293	1												21.8	22.8	22.4	—	—	—	—	
La Romieu																				
UCBL 320272	1												20.8	20.9	21.0	25.1	22.4	19.2	..	
UCBL 320305	1									19.1	19.1	19.2	22.0	24.8	24.3					
UCBL 320288	r						17.9	11.8	16.3	14.3	15.8	20.3	20.1	19.7	23.8	24.2	25.2			
UCBL 320295	1						18.3	11.9	17.2	13.7	15.9	18.7	>17.7	19.0	22.5	22.2	23.1			
Langenau I																				
SMNS 41631	r	15.3	..	13.4	18.8	..	17.2	15.0	18.1	16.8	..	19.9	21.8	..	24.2	31.3	24.1	..	..
Ravensburg																				
NMB TD 543	r												20.3	20.9	20.8	28.3	22.8	19.4	9.2	
<i>B. intermedius</i>																				
<u>Maerzuizigou</u>																				
BNHM EPV-930	1				17.8	10.0	13.1	—	—	—	—	—	21.0	20.0	20.8	28.4	22.2	20.0	10.0	
	r							15.2	16.5	18.4	18.0	18.0	21.4	20.5	19.4	30.1	22.0	18.9	9.8	
BNHM EPV-952	1															—	—	..	..
<u>Listriodon</u>																				
<u>L. pentapotamiae</u>																				
Marlanwala Kas																				
BSPHGM 1956																				
II 109	r								14.8	15.0	—	16.1	—	—	—	—	—	—	—	
BSPHGM 1956 II 77	r																	24.2	23.2	—
Sosianwali																				
BSPHGM 1956 II 76	1	13.6	—	11.9	16.3	10.5	>15.6	14.0	17.3	17.2	—	17.2	—	17.2						
BSPHGM 1956 II 88	r													18.0	18.4	18.0	19.7	19.8	17.8	..
Kanatti Chak 7																				
BSPHGM 1956 II																				
112	1									15.5	15.0	14.8	18.4	17.9	18.2					
Kadirpur																				
BSPHGM 1956																				
II 106 a, b	1									19.0	17.2	18.1	22.2	20.0	21.6					
Kundal Nala 2																				
BSPHGM 1956 II 37	1	11.5	7.5	10.5	14.8	9.3	13.5	12.3	14.8	>14.3	—	15.6	19.9	17.7	18.1	—	19.8	—	..	
	r	11.7	8.1	10.3	>12.6	8.8	13.5	12.9	14.7	—	—	—	—	—	—	>21.7	19.3	17.9	..	
Chinj1																				
IM B 541	r	12.3	8.2	10.9	14.9	10.4	14.5	12.2	16.1	16.0	15.2	16.2	19.2	18.4	19.8	23.3	21.2	18.9	13.4	
<u>L. splendens</u>																				
Sanean																				
MNHNP Sa 4298	r								15.4	15.7	17.4	..	16.9	20.3	..	20.0	24.5	21.0	..	
MNHNP Sa 4299	r									16.6	..	16.3	20.2	..	19.0	24.6	21.9	..	..
MNHNP Sa 10.141	1									14.5	—	—	18.8	..	18.9	+22.0	+21.0	..	..
	r	14.8	..	9.3	14.6	..	14.0	—	—	14.4	..	16.0	—	..	+19.0	23.0	20.0	..	..
Paqalar																				
POTFAU F402	r				18.4	11.3	16.0	16.5	18.0	>17.6	>16.6	17.0	21.5	21.2	21.3	28.4	23.7	19.9	11.4	
Simorre																				
MNHNP S1 156	1	—	—	—	—	—	—			15.8	..	16.0	20.1	..	19.8	25.1	20.9	..	..
	r	13.7	9.1	11.5	16.3	10.9	14.3			16.0	16.9	17.1	19.8	20.2	20.4	24.6	22.1	18.9	..	
Villefranche d'Astarac																				
MNHNP 4298	1								15.4	16.1	17.1	16.6	17.7	20.5	21.7	21.7	25.5	22.9	19.5	..
MNHNP VAS 13	r									—	—	>16.7	20.4	20.5	21.3					
L'Île-en-Dodon																				
FMNH cast of																				
BNHM 33577	..	13.8	8.3	10.9	16.2	>9.8	>13.3	12.6	>15.2	17.8	16.5	16.6	20.2	19.9	19.8	24.9	21.3	18.5	..	
Xinan																				
IVPP V8283	1	—	—	—	18.7	—	—	15.3	19.4	—	19.6	—	22.5	24.8	>24.0	28.7	25.3	22.5	..	
	r	—	—	—	19.1	12.1	17.8	15.8	19.4	—	—	—	>21.4	—	—	28.5	—	23.8	..	
IVPP V8285	1	14.8	8.7	12.8	19.5	10.3	16.1	17.2	17.7	—	—	19.9	22.9	23.5	22.6	29.1	24.3	20.4	..	
	r	14.6	8.2	12.3	17.3	10.9	16.4	15.1	17.7	19.2	>19.6	19.8	23.0	23.6	23.6	28.1	24.2	21.1	..	
Çandır																				
PIMUZ CA —	r	14.7	9.3	>11.9	17.2	11.7	16.3	14.9	17.8	18.5	17.6	18.0	21.9	21.6	21.3					
MTA —	1				18.5	12.7	16.8	15.3	19.4	20.7	20.8	20.6	24.1	24.8	24.9	29.5	27.1	25.3	..	
	r				18.4	12.9	16.5	15.7	18.3	19.5	20.0	20.4	23.9	24.7	24.6	30.6	27.1	25.0	..	
Manchones I																				
IVAU MA 115	r	>13.8	9.8	11.2	17.2	10.5	14.2													
IPS 1097	1							15.0	17.0	17.4	19.0	19.2	22.2	23.0	22.8	28.3	25.0	21.3	..	
IPS 1098	r							15.4	17.0	17.4	19.0	19.3	21.4	23.0	22.8	28.0	24.9	21.8	..	
Arroyo del Val IV																				
IVAU AR IV 21	r												21.8	22.0	—	29.7	24.2	22.8	..	
IVAU AR IV 44	1				18.3	10.7	18.4	>16.8	—											
IVAU AR IV 73	r												23.4	21.1	21.9	27.7	23.1	21.3	..	
IVAU AR IV 74	r				18.1	13.2	—	15.8	+18.2	18.6	17.9	18.5								
IVAU AR IV 75	1							16.7	18.3	18.4	17.8	18.5								
IVAU AR IV 82	1				18.8	11.9	18.5	17.3	>19.3	17.4	18.5	19.2	23.8	24.3</						

TABLE 15a Measurements of the postcranial skeleton in mm.

Axis	Body DAP	DTp	Hp	Total H	Vertebral Foramen H DT		Cranial artic. DT	Caudal artic. DT		
Kubanochoerus massai										
Gebel Zelten										
MNHNP Z 1961	62.6	38.8	34.8	---	15.1	21.3	66.4	44.7		
MNHNP Z 1961	61.0	---	---	---	---	---	58.8	---		
MNHNP Z 1961	56.1	38.2	32.6	---	---	---	65.2	---		
Humerus distal										
Nguruwe kijivium										
Mteitei 32										
KNM-MV 18	1	..	24.4	16.7	15.4	11.4	13.4	11.1		
Rusinga R30										
KNM-RU 5343	r	---	---	16.5	14.5	9.5	10.6	9.4		
Kubanochoerus massai										
Gebel Zelten										
MNHNP Z 1961	.	62.3	54.3	41.0	40.4	28.3	33.5	27.6		
MNHNP Z 1961	.	57.4	51.6	39.2	36.8	26.6	31.8	27.5		
Bunolistriodon										
B. anchidens										
Rusinga R1										
KNM-RU 3342	1	---	43.6	31.4	>24.4	19.8	20.9	>17		
B. lockharti										
Langenau I										
SMNS 41231	1	..	..	37.4	---	---	---	26.0		
SMNS 41418	.	..	..	34.5	32.0	---	---	28.2		
Listriodon splendens										
Paqalar										
PDTFAU G 932	1	---	---	33.2	31.6	22.1	25.4	24.6		
La Grive										
MGL LGr 718	r	---	>55.5	42.2	30.6	29.4	30.0	26.0		
MGL LGr 2644	1	---	>42.3	34.3	---	22.9	27.7	24.0		
La Chau-de-Fonds										
MHNCF ---	r	---	---	34.8	---	---	---	---		
La Cisterniga										
MNCN NM 1292	1	---	---	38.5	>38.0	27.1	31.3	27.5		
MNCN NM 1292	1	---	---	>37.1	>35.9	25.9	29.9	25.1		
MNCN NM 1421	r	>45.7	52.8	36.6	33.5	25.7	31.8	27.3		
Radius										
Kubanochoerus massai										
Gebel Zelten										
MNHNP Z 1961	r	..	31.9							
Bunolistriodon										
B. anchidens										
Rusinga R1										
KNM-RU 5853	1	20.9	30.8							
Listriodon splendens										
Paqalar										
PDTFAU G 305	1	21.1	32.8							
PDTFAU G 1808	r	---	35.4							
PDTFAU G 1885	1	22.7	37.9							
Arroyo del Val IV										
AR IV 400	1	27.9	42.3							
La Grive										
MGL LGr 607	1	---	---	25.2	18.5	33.7	29.1	15.5	14.7	
La Ciesma										
DPZ 2009	..	---	---	..	19.9	..	28.9			
Ulna										
Kubanochoerus massai										
Gebel Zelten										
MNHNP Z 1961	r	---	---	---	41.9	..	---			
MNHNP Z 1961	r	---	---	---	---	24.9	---			
Listriodon splendens										
Arroyo del Val IV										
IVAU AR IV 186	1	---	---	39.4	---	---	31.5			
MC III										
Kubanochoerus massai										
Gebel Zelten										
MNHNP Z 1961	1	>26.5	29.7	+126.2	120.5	---	24.2			
MNHNP Z 1961	r	>28.7	---	116.3	110.5	---	25.3			
MNHNP Z 1961	r	---	34.9	---	---	---	---			
MNHNP Z 1961	r	---	>27.1	---	---	---	---			
Bunolistriodon										
B. aff. latidens										
La Artesilla										
MPZ-6473	r	20.6	20.4							
B. lockharti										
Buñol										
FBS 13	1	---	>23.9							

MC III		DAPp	DTp	L	1	DAPd	DTd
<u>Pellecahus</u>							
UCBL 320282	r	25.0	..				
<u>La Romieu</u>							
NMB GB 1265	r	21.7	22.1				
<u>Langenau 1</u>							
SMNS 41234	l	27.1	26.0				
<u>Szentendre</u>							
HGSB V 13077	r	--	>24.6				
<u>B. guptai</u>							
?HGSP 8316							
HGSP 8316/1982	l	21.8	25.8				
<u>Listriodon splendens</u>							
<u>Arroyo del Val IV</u>							
IVAU AR IV 114	l	--	28.5				
MNCN --	l	>23	26.8				
<u>Murrero</u>							
IVAU MR 10		--	29.8	99.2	..	22.1	24.1
<u>La Grive</u>							
MGL LGr 755	r	>27.0	30.3	--	109.6	--	25.6
MGL LGr 756	r	>22.4	>25.2	105.7	97.3	22.1	22.0
MGL LGr 1675	r	>21.7	>23.1				
MGL LGr 1679	r	>19.6	23.7				
<u>La Cisterniga</u>							
IPS 1133		28.2	25.4				
MC IV		DAPp	DTp	L	1	DAPd	DTd
<u>Nguruwe kijivium</u>							
<u>Mfwanganu</u>							
KNM-MW 516	l	9.0	10.7	--	--	--	--
<u>Kubanochoerus massai</u>							
<u>Gebel Zelten</u>							
MNHNP Z 1961	l	20.8	19.1	110.8	99.2	23.6	21.3
MNHNP Z 1961	l	20.3	20.2	--	--	--	--
<u>Bunolistriodon</u>							
<u>B. aff. latidens</u>							
<u>La Artesilla</u>							
MPZ-6474	l	16.2	20.2				
<u>B. lockharti</u>							
<u>Pellecahus</u>							
NMB GB 2460	r	>17.9	+17.8				
UCBL 320282	r	18.9	20.5				
UCBL 320282	r	18.1	19.9				
<u>Buñol</u>							
PAN 681	r	18.2	19.9	103.0	..	21.0	>19.5
FBS 11	r	19.0	22.0				
<u>Can Canals</u>							
IPS 1177	l	--	--				
<u>Listriodon splendens</u>							
<u>Paşalar</u>							
PDTFAU G 742	l	17.6	17.7				
PDTFAU G 879	l	>17.6	19.9				
<u>La Grive</u>							
MGL LGr 752	r	18.9	21.7	106.0	96.5	22.0	20.6
MGL LGr 754	l	>17.1	>17.9	>96.8	90.6	>19.5	19.8
MGL LGr 1749	l	16.6	19.4	96.1	87.3	19.6	19.5
MGL LGr 1753	r	>18.4	>20.9				
<u>S. Quirze</u>							
MGSCB 48562	r	16.1	18.3				
Phalange 1, III/IV		DAPp	DAPpf	DTp	L	DAPd	DTd
<u>Nguruwe kijivium</u>							
<u>Mfwanganu</u>							
KNM-MW 517	r	9.6	..	10.8	--	--	--
<u>Kubanochoerus</u>							
<u>K. hussaini</u>							
HGSP 8213							
HGSP 8213/450	r	43.2	..	55.7	77.8	27.1	42.3
HGSP 8405							
HGSP 8405/3047	l	--	--	--	>58.5	20.1	32.9
<u>K. massai</u>							
<u>Gebel Zelten</u>							
MNHNP Z 1961	r	19.7	..	23.4	48.2	>12.9	20.0
<u>K. gigas</u>							
<u>Kundal Nali</u>							
IVAU CHK 168	l	32.3	..	32.3	60.3	31.7	21.7
<u>Bunolistriodon</u>							
<u>B. lockharti</u>							
<u>La Romieu</u>							
UCBL 320298	l	19.9	..	--	--	--	--
<u>Pellecahus</u>							
UCBL 320310	pes, IV	19.6	..	22.6	+43.5	+13.0	--
NMB GB 1457	r	20.7	20.1	22.5	49.6	12.2	>15.8
<u>Langenau 1</u>							
SMNS 40681	r	19.0	..	18.5	--	13.1	15.5
<u>Buñol</u>							
FBS 17	l	20.6	..	22.8	--	--	--
FBS 21	l	--	--	--	--	13.2	17.0

Phalange 1, III/IV		DAPp	DAPpf	DTp	L	DAPd	DTd
FBS 22	r	--	--	--	--	14.3	17.6
PAN 23	r	>18.2	..	21.8	--	--	--
PAN 209	r	--	--	17.6	--	--	--
IVAU BU 53	r	22.3	..	22.9	45.3	12.8	16.5
Monteagudo							
IPS 1511	r	+20.6	..	>49.0	12.0	14.6	
Pontlevoy							
NMB Pa 209	r	17.0	14.7	17.5	43.1	11.3	13.5
<u>B. aff. latidens I</u>							
<u>Tarazona</u>							
UPV T2.49	1	--	--	--	--	11.5	15.4
<u>Listriodon splendens</u>							
<u>Paçalar</u>							
PDTFAU G 43	r	20.2	..	22.8	--	--	--
PDTFAU G 1341	r	--	--	--	--	13.4	15.8
PDTFAU G 2114	1	19.3	..	21.3	47.4	12.8	15.7
<u>Manchones I</u>							
IPS 1865	r	21.7	..	23.2	51.6	14.4	17.7
<u>La Grive</u>							
UCBL --	1	18.1	..	19.3	46.5	13.1	15.4
UCBL --	1	21.2	..	19.8	48.4	13.5	17.0
UCBL --	1	18.6	..	19.4	47.5	12.0	15.3
UCBL --	1	19.6	..	22.1	44.1	14.1	17.8
UCBL --	r	20.2	..	20.2	45.5	12.8	16.3
MGL LGr 1743	1	juvenile				13.3	17.6
MGL LGr 1862	1	18.0	17.2	19.2	46.3	11.8	14.6
MGL LGr 1863/1685	1	19.6	16.7	18.4	45.9	12.3	15.9
MGL LGr 1864	1	21.0	17.5	20.4	48.7	12.3	17.4
MGL LGr 2639	r	22.2	19.7	23.6	52.6	15.7	18.6
<u>La Chaux-de-Fonds</u>							
MHNCF --	1	19.3	17.9	19.9	47.8	12.5	16.3
<u>La Cisterniga</u>							
MNCN M 610	1	18.8	20.1	20.1	48.2	12.4	16.2
<u>Phalange 2, III/IV</u>		<u>DAPp</u>	<u>DAPps</u>	<u>DTp</u>	<u>L</u>	<u>DAPd</u>	<u>DTd</u>
<u>Lopholistriodon</u>							
<u>L. moruoroti/pickfordi</u>							
<u>Maboko</u>							
KNM-MB 10304	1	5.5	5.1	5.1	9.2	4.3	4.3
KNM-MB 14458	1	6.6	..	6.5	8.8	5.8	6.2
<u>Kubanochoerus</u>							
<u>K. hussaini</u>							
HGSP 8127							
HGSP 8127/432	r	27.1	..	30.1	41.4	22.7	29.7
<u>K. massaï</u>							
<u>Gebel Zelten</u>							
MNHNP Z 1961	r	20.9	19.4	18.2	29.6	16.6	19.0
<u>Bunolistriodon</u>							
<u>B. aff. latidens</u>							
<u>La Artesilla</u>							
MPZ-6482	1	17.2	..	15.0	25.9	13.5	14.3
MPZ-6483	r	18.9	..	15.8	25.8	13.8	13.9
<u>B. lockharti</u>							
<u>La Romieu</u>							
UCBL 320308	r	17.3	..	14.6	24.6	12.0	14.6
UCBL 320308	r	17.0	..	14.5	23.8	12.9	14.4
UCBL 320308	1	17.8	..	15.1	26.3	12.1	12.9
<u>Pellecahus</u>							
UCBL 320310 pes IV	1	19.2	..	16.2	26.4	14.4	16.0
<u>Buñol</u>							
IPS 1145	1	--	--	>16.9	25.8	--	>16.9
BUS 4	r	20.1	18.8	16.5	27.6	>13.5	13.9
FBS 16	1	20.8	19.9	18.5	29.3	17.3	19.7
FBS 19	r	18.3	17.5	16.4	26.4	13.3	13.6
FBS 20	r	>17.8	>17.6	15.7	+28.6	--	--
PAN 37	1	--	--	--	--	>15.2	18.0
<u>Szentendre</u>							
HGSB V 13077	r	21.1	19.0	23.0	--	--	--
<u>B. aff. latidens I</u>							
<u>Valdemoros IA</u>							
IVAU VA IA --	r	--	--	--	--	10.2	12.3
<u>Listriodon</u>							
<u>L. pentapotamiae</u>							
<u>Kanetti</u>							
IVAU KA 54	1	--	..	14.6	24.1	13.9	14.1
<u>Cheski Wala</u>							
IVAU CHC 133	r	20.4	..	15.7	28.5	15.4	15.1
IVAU CHC 134	r	--	..	15.4	17.8	--	14.1
IVAU CHC 137	1	>18.4	..	15.1	26.9	13.9	13.5
<u>Mochi Wala</u>							
IVAU CHO 90	r	19.9	..	15.2	28.1	12.3	13.7
<u>L. splendens</u>							
<u>Paçalar</u>							
PIMUZ --	1	19.8	18.4	15.5	28.6	15.2	14.4
PIMUZ --	1	20.1	18.9	16.3	>29.8	14.6	15.7
PDTFAU F 89	r	19.3	19.3	17.9	28.9	--	17.9
PDTFAU F 348/1	r	19.2	18.4	17.2	--	--	15.1

Phalange 2, III/IV	DAPp	DAPps	DTp	L	DAPd	DTd
PDTFAU F 348/2	1	--	--	+28	--	--
PDTFAU F 590/9	r	21.0	19.5	16.8	--	--
PDTFAU G 348	r	20.9	20.0	18.3	30.2	17.1
PDTFAU G 428	l	20.6	19.5	16.1	30.3	14.7
PDTFAU G 1016	r	20.6	20.0	16.7	29.2	14.5
Manchones I						
MA I 136	r	20.2	19.6	16.0	19.6	>13.5
Arroyo del Val IV						
IVAU AR IV 98	r	>19.7	>18.7	16.8	28.7	13.7
IVAU AR IV 113	l	23.7	22.4	20.5	>32.9	18.8
Arroyo del Val I						
IVAU AR I --	l	23.3	21.5	19.7	--	--
Murrero						
IPS 1070	l	18.0	..	16.8	24.8	13.9
La Grive						
UCBL --	l	17.6	..	15.6	24.3	13.7
UCBL --	r	19.7	..	15.4	28.2	>14.2
UCBL --	r	19.3	..	15.5	29.1	15.0
UCBL -- (juvenile)	r	--	--	--	--	17.3
MGL LGr 2240	l	17.6	16.8	15.1	27.4	12.5
MGL LGr 1693	r	22.1	20.9	19.0	32.8	>16.0
MGL LGr 1695	r	20.3	19.6	17.0	31.3	15.0
MGL LGr 1697	l	20.5	20.0	16.1	30.8	14.7
MGL LGr 1704	r	--	--	17.2	28.4	>15.3
MGL LGr 1723	r	22.8	21.2	17.8	31.2	17.0
La Chaux-de-Fonds						
MHNCF --	l	--	--	18.9	35.8	17.3
La Cisterniga						
MNCN NM 1396	l	23.8	22.2	19.9	33.8	18.3
Hostalets						
MGSCB 48555	r	21.8	20.5	17.1	31.2	16.6

Tibia	DAPp	DTp	L	l	DAPd	DTd
<u>Kubanochoerus</u>						
<u>K. maryunngui</u>						
Baragol						
MNHNP Z 1961	l	--	--	--	34.5	47.7
<u>Kubanochoerus massai</u>						
Gebel Zelten						
MNHNP Z 1961	l	35.7	39.4			
<u>Bunolistriodon</u>						
<u>B. lockharti</u>						
Langenau I						
SMNS 41232	r	--	--	--	29.0	27.5
SMNS 41233	l	--	--	--	..	..
SMNS 41236	r	38.3	37.8	+151	..	19.6
Szentendre						
HGSB V 13077	r	--	--	--	--	--
<u>Listriodon</u>						
<u>L. pentapotamiae</u>						
Cheski Wala						
IVAU ..	r			--	22.1	22.5
<u>L. splendens</u>						
MGL LGr 1659	r			--	26.1	29.9
Cerro del Otero						
MNCN 201	l	..	..	>233.0	..	31.4
MNCN 201	l	..	..	--	+33.0	--
MNCN 201	r	..	..	235.4	..	33.3

Calcaneum	L	Lup	Llow	head DAP	DT	tuber DAP	DT	facet DAP	DT	max DAP
<u>Kubanochoerus</u>										
<u>K. massai</u>										
Gebel Zelten										
MNHNP Z 1961	l	107.6	67.7	+42.9	27.8	21.1	26.2	12.1	31.0	--
MNHNP Z 1961	r	101.1	62.2	42.8	27.5	21.8	24.5	13.2	29.4	23.7
<u>K. gigas</u>										
Maerzuizigou										
BMNH	l	+170	+99	+65	+39.6	--	41.5	17.3	46.2	40.2
<u>Bunolistriodon</u>										
<u>B. lockharti</u>										
La Romieu										
UCBL 320301	r	--	61.3	--	26.7	23.8	26.4	15.5		26.4
Pellecahus										
UCBL 320310	l	>88	59.5	30.8	22.8	21.6	24.1	12.7		..
Buñol										
FBF-206	r	--	--	--	--	--	26.6	14.0	29.0	..
Szentendre										
HGSB V 13077	r	--	--	41.5	--	24.2	--	--	30.8	26.2
<u>B. guptai</u>										
HGSP 8412										
HGSP 8412/3128	r	--	--	--	--	--	--	--	28.5	20.7
<u>Listriodon</u>										
<u>L. pentapotamiae</u>										
Burfi Wala										
IVAU CHB 26	..	--	--	--	--	--	18.7	9.7	23.3	18.3

Calcaeaum	L	Lup	Llow	head DAP	DT	tuber DAP	DT	facet DAP	DT	max DAP
HGSP 8220										
HGSP 8220/1040	1	--	--	--	--	22.5	..	25.1	18.6	--
?HGSP 8302										
HGSP 8302/1305	1	--	--	--	--	--	>12.1	--	--	--
<u>L. splendens</u>										
Arroyo del Val IV										
MPZ DPZ/AV-55	r	--	--	32.9	--	--	--	27.5	24.6	37.3
La Grive										
MGL LGr 1901	1	--	--	--	--	20.6	10.6	22.9	>17.3	--
MGL LGr 1908	1	--	--	--	juvenile	22.3	12.2	25.7	--	--
MGL LGr 1910	r	--	--	37.5	--	23.5	12.1	28.1	20.9	35.0
MGL LGr 2619	1	82.8	50.1	36.0	19.8	18.4	20.8	11.6	24.5	19.8
La Chaux-de-Fonds										
MHNCF --	1	--	--	38.7	--	--	--	27.8	24.0	35.4
Cerro del Otero										
MNCN 190	r	>91.3	>57.6	33.6	23.2	20.6	23.9	14.3	28.6	22.4
MNCN 190	r	--	--	34.4	--	--	--	13.5	22.1	20.0
La Cisterniga										
MNCN NM 1422	1	--	66.7	--	27.6	23.0	26.8	14.1	31.0	24.8
S. Quirze										
MGSCB	1?	--	--	--	>25.6	>19.7				
<u>Astragalus</u>										
<u>Nguruwe kijivium</u>										
Rusinga Kathwanga										
KNM-RU 3036	1	24.1	20.0	21.4	10.5	12.3	13.7	3.5		
Rusinga (loc.?)										
KNM-RU 5868	1	25.6	21.1	23.3	11.2	12.2	13.1	4.7		
Songhor										
KNM-SO 249	1	25.4	20.7	22.7	12.1	12.4	14.8	4.7		
Mfwanganu										
KNM-MW 439	1	>28.5	23.7	26.6	13.4	15.3	16.2	5.8		
KNM-MW 543	1	--	--	--	14.2	--	15.7	--		
<u>Kubanochoerus</u>										
<u>K. maryunngui</u>										
Baragoi BGX										
KNM-Bg 17970	1	59.9	47.3	54.7	30.3	36.3	34.4	10.7		
Baragoi loc.?										
KNM-BG 16903	r	61.4	47.0	>54.0	28.3	34.1	--	10.7		
KNM-BG 16916	1	--	--	--	--	38.0	--	13.1		
<u>K. hussaini</u>										
Nyakach-Kaimogool E										
KNM-NC 9797	r	>65.2	52.5	>61.2	32.3	>37.5	>34.5	--		
HGSP 8425										
HGSP 8425/3557	r	102.4	77.2	89.5	55.3	59.0	54.5	20.7		
<u>K. massaai</u>										
Gebel Zelten										
MNHNP Z 1961	1	--	40.9	46.7	--	29.2	26.6	9.7		
MNHNP Z 1961	1	>57.5	+48.2	--	>26.2	+26.7	--	11.8		
MNHNP Z 1961	r	57.6	45.3	53.3	26.3	29.3	28.4	9.8		
MNHNP Z 1961	r	56.3	43.8	50.6	27.1	30.8	28.8	10.2		
<u>K. gigas</u>										
Maerzuizigou										
BNHM --	1	82.2	62.6	71.5	46.0	52.0	44.7	19.9		
<u>Bunolistriodon</u>										
<u>B. anchidens</u>										
Rusinga RI										
KNM-RU 5089	r	42.7	34.4	39.0	20.4	22.1	22.1	6.3		
Rusinga-Kulu										
KNM-RU 5090	r	38.8	31.4	35.0	17.4	19.7	19.6	6.9		
<u>B. aff. latidens</u>										
Olival da Suzana										
CEPUNL 27	1	41.7	..	..	22.3	24.4	23.8	8.3		
Quinta da Silvéria										
CEPUNL 48	1	42.3	..	..	20.1	23.6	22.8	8.8		
Quinta Grande										
CEPUNL 34	1	44.6	..	..	22.4	25.0	24.7	+7.8		
Quinta da Lobeira										
CEPUNL 45	1	39.3	..	..	19.4	22.1	22.1	7.9		
La Artesilla										
MPZ-6470	1	>42.1	..	..	20.6	22.1	--	9.2		
MPZ-6471	1	45.1	31.4	41.3	22.1	25.3	26.5	9.8		
MPZ-6472	r	--	32.9	38.2	20.4	23.4	21.1	+7.6		
Tarazona										
UPV T5.1	1	40.6	32.5	--	--	21.4	--	8.3		
UPV T6.35	r	>39.5	--	--	20.3	23.4	21.8	7.5		
La Hidroeléctrica										
IPS 1143	1	40.7	..	..	20.9	>20.3	24.2	7.3		
<u>B. M</u>										
Paçalar										
PDTFAU G 790	r	38.4	30.7	35.2	18.1	19.9	21.3	6.9		
PDTFAU G 1661	1	--	--	38.9	--	+22.8	--	7.7		
<u>B. lockharti</u>										
La Romieu										
UCBL 320301	1	47.5	..	..	>23.3	26.2	28.2	9.8		
UCBL 320301	r	52.0	..	..	25.3	27.8	27.6	10.4		

Astragalus		Lext	Lm	Lint	DTp	DTd	R	d
UCBL 320301	r	51.3	..	..	23.4	26.5	26.8	9.8
Pellecahus								
UCBL 320310	l		..	..	22.8	27.4	23.9	9.3
Baigneaux-en-Beauce								
NMB SO 1856	r	---	33.5	---	---	22.3	---	7.3
NMB SO 5746	l	44.4	36.2	>40.5	21.2	22.8	24.2	7.5
Buñol								
IPS 1144	l	47.3	..	44.2	+24.3	26.4	25.8	9.5
FBS 7	r	46.4	37.2	42.7	23.8	25.7	24.8	8.4
FBS 8	r	47.4	38.1	43.6	23.5	27.5	26.5	10.0
PAN 915	r	49.5	39.3	45.0	25.5	28.1	27.6	10.3
---	r	47.4	38.2	---	22.1	25.2	---	9.5
Gerlenhofen								
SMNS cast	r	---	---	---	---	23.8	26.5	9.7
Ravensburg								
NMB TD 554	r	48.2	38.5	44.1	23.6	26.0	25.9	8.6
NMB TD 554	l	>46.0	37.1	>41.7	21.7	23.5	23.7	---
Monteagudo								
IPS 1510	l		..	42.4	22.1	24.0	26.4	8.2
Pontlevoy								
MNHNP FP 727	r	46.3	36.8	41.9	22.9	25.9	26.1	9.3
Szentendre								
HGSB V 13077	r	51.0	39.0	45.5	25.9	30.5	27.3	10.7
Can Canals								
IPS 1176	l		---	---	---	27.2	---	10.4
IPS 1179	l		---	---	---	21.8	---	8.5
Quinta Pedreiras								
CEPUNL 60	l	43.4	..	..	20.4	>20.8	23.0	7.9
Quinta da Conceição								
CEPUNL 54	l	45.0	..	..	21.7	23.1	24.2	2.7
<u>B. guptai</u>								
?HGSP 8227								
HGSP 8227/1248	l		27.8	30.2	28.0	---	---	---
<u>Listriodon</u>								
<u>L. pentapotamiae</u>								
Dhok Talian loc. 189								
GSP 4484	l	40.2	36.8	44.5	21.8	24.6	..	9.0
Tekunja								
IVAU CHT 89	l	40.0	32.2	36.6	18.2	>22.3	20.9	+7.7
Mochi Wala								
IVAU CHO 76	r	42.5	34.3	39.6	19.9	>21.6	23.7	+7.0
HGSP 8102								
HGSP 8102/898	r	34.9	28.5	31.0	14.6	17.3	19.0	6.3
?HGSP 8105								
HGSP 8105/52	r	---	---	---	---	---	---	---
<u>L. splendens</u>								
Simorre								
MNHNP Si 170	l	43.0	..	..	20.9	25.8	22.1	9.6
Paşalar								
PDTFAU C 2071	r	---	---	---	26.8	---	---	---
PDTFAU F 347	r	---	---	---	---	---	---	9.6
PDTFAU F 494/8	l	---	---	---	---	27.2	---	9.4
PDTFAU G 447	r	---	---	---	---	27.9	---	9.6
Çandır								
MTA ---	r	---	---	---	---	29.3	---	10.9
Manchones I								
MA 119 = MA 271	l	47.7	36.6	41.5	23.4	>23.4	>23.3	11.5
IPS 1867	r	---	---	---	---	30.0	---	9.5
Arroyo del Val IV								
IVAU AR IV 35	r	49.6	39.3	44.8	25.0	28.1	27.9	8.7
IVAU AR IV 65	l	46.2	36.2	42.8	24.3	25.3	25.5	9.1
IVAU AR IV 66	r	46.3	36.7	42.4	23.8	27.6	25.5	8.1
MPZ DPZ/AV-54	l	46.3	..	..	24.2	27.2	25.8	8.5
La Grive								
MGL LGr 757	r	43.1	34.5	38.9	21.7	23.9	23.2	---
MGL LGr 758	l	---	37.9	44.2	24.1	28.3	26.8	+8.6
MGL LGr 759	r	>43.3	34.5	>39.3	23.5	26.1	>24.3	9.6
MGL LGr 1532	l	47.9	37.8	42.3	23.3	24.8	25.1	+8.5
MGL LGr 1548	l	40.9	32.4	38.1	22.4	23.7	22.3	6.9
MGL LGr 1549	r	47.5	37.3	42.3	24.6	26.4	26.5	8.0
MGL LGr 1550	l	43.2	34.2	38.3	19.5	23.4	22.3	9.0
MGL LGr 1551	l	>42.4	33.8	38.4	19.6	21.7	24.1	---
MGL LGr 1552	l	38.9	31.1	34.2	17.5	20.8	20.8	9.1
MGL LGr 1745	r	---	35.1	38.9	---	24.0	24.0	8.2
MGL LGr 2491	r	---	33.2	37.7	---	---	23.2	---
La Chaux-de-Fonds								
MHNCF ---	l	---	41.1	47.3	---	28.8	---	9.7
MHNCF ---	r	---	38.7	45.7	>25.3	28.1	27.7	10.4
MHNCF ---	r	49.0	38.9	43.0	24.7	28.7	26.4	9.4
MHNCF ---	r	---	>37.8	42.5	23.6	26.7	25.3	9.5
Cerro del Otero								
MNCN 191	l	48.4	---	---	24.8	---	---	---
MNCN 191	r	>51.5	42.6	>47.4	25.8	28.6	26.4	9.6
MNCN 191	r	>45.6	>39.0	>44.9	---	---	---	---
MNCN 191	r	48.4	---	---	24.8	---	---	---
Castell de Barberà								
IPS 1569	l	45.7	..	41.6	21.8	23.3	26.1	9.4

Astragalus		Lext	Lm	Lint	DTp	DTd	R	d
IPS --	1	51.0	..	47.0	25.6	29.3	28.6	8.7
S. Quirze								
MGSCB 48583	r	--	--	--	--	--	--	--
Hostalets								
IPS 1032	1	--	..	46.0	>27.1	29.7	27.2	9.9
MT III		DAPp	DTp	L	1	DAPd	DTd	
<u>Nguruwe kijivium</u>								
Mfwanganu								
KNM-MW 71	r	--	11.3	>63.8	61.7	>10.1	10.5	
<u>Lopholistriodon</u>								
<u>L. moruoroti</u>								
Moruorot								
KNM-MO 50	1	10.1	6.6					
<u>Kubanochoerus</u>								
<u>K. massai</u>								
Gebel Zelten								
MNHNP Z 1961	1	33.5	25.0	<142.0	<135.4	24.2	22.2	
MNHNP Z 1961	1	--	24.6	--	--	--	--	
<u>K. gigas</u>								
Maerzuizigou								
BMNH --	1	--	36.1	142.9	138.5	--	29.0	
<u>Bunolistriodon</u>								
<u>B. anchidens</u>								
Rusinga R1								
KNM-RU 5151	r	25.0	16.0					
<u>B. lockharti</u>								
Pellecahus								
NMB GB 1392	1	27.8	22.3					
UCBL 320278	r	>23.3	19.6					
UCBL 320278	1	27.0	20.4					
UCBL 320278	1	27.8	21.7					
UCBL 320310	1	27.8	22.1	109.8	..	19.0	21.3	
Buñol								
FBS 82	r	25.1	21.0					
Can Canals								
IPS 1178	1	26.4	21.1					
<u>Listriodon splendens</u>								
Simorre								
MNHNP ..	r	25.9	19.5	95.8	..	19.0	16.1	
Paşalar								
PDTFAU G 1385	r	24.5	>19.9					
Çandır								
MTA --	1	--	20.9	106.3	99.3	22.2	20.4	
MTA --	r	--	22.5	109.5	101.5	+22.5	>20	
Paracuellos III								
MNCN PA 626	r	>27.0	21.0					
Arroyo del Val IV								
MPZ AV-37	1	28.1	--	>102.9	..	>19.0	18.5	
La Grive								
MGL LGr 6007	1	24.5	20.0					
MT IV		DAPp	DTp	L	1	DAPd	DTd	
<u>Kubanochoerus massai</u>								
Gebel Zelten								
MNHNP Z 1961	1	--	>17.1	--	--	--	--	
MNHNP Z 1961	1	36.1	21.3	131.4	119.2	24.5	21.0	
MNHNP Z 1961	1	--	20.6	--	--	--	--	
<u>Bunolistriodon</u>								
<u>B. aff. latidens</u>								
La Artesilla								
MPZ-6475	--		14.4					
<u>B. lockharti</u>								
Pellecahus								
UCBL 320310	1	28.4	18.0	115.4	..	19.3	18.9	
UCBL 320278	r	--	--	>111	..	--	--	
NMB GB 1390	r	29.3	18.3					
NMB GB 1391	r	>30.5	18.1					
<u>Listriodon splendens</u>								
Çandır								
MTA --	r	--	19.6	+108.4	104.8	22.9	>20.4	
La Grive								
MGL LGr 753	r	27.6	19.6	115.8	104.9	21.5	19.6	
La Grive M								
CPE --	r	--	17.8	--	98.3	>19.7	>17.4	
Castell de Barberà								
IPS --	--		21.7	--	--	--	--	

MP II/V distal	DAPd	DTd	MP III/IV distal	DAPd	DTd					
<u>B. lockharti</u>			<u>Çandır</u>							
Buñol			MTA ÇBHI/142	1	—	23.4				
IVAU —	14.9	10.5	Arroyo del Val IV							
<u>B. akatikubas</u>			IVAU AR IV 99	1	21.8	19.6				
Mbagathi			IVAU AR IV 115	r	—	>26.6				
KNM-MG 29	..	15.2	RCM ...	1	+20.0	18.0				
<u>Listriodon</u>			MPZ AV-37	1	21.0	19.8				
<u>L. pentapotamiae</u>			MPZ DPZ/AV-45	1	18.6	15.0				
Chinji Formation			La Grive							
bought specimens			MGL LGr 1676	r	>18.2	17.9				
IVAU CH —	1	—	MGL LGr 1677	1	>18.4	>17.8				
IVAU CH —	r	12.4	MGL LGr 1678	r	>19.0	>21.3				
<u>L. splendens</u>			MGL LGr 1751	r	19.8	19.9				
Paşalar			MGL LGr 1755	r	19.7	17.9				
PDITFAU D 1191	r	13.4	MGL LGr 1758	1	21.7	>18.0				
PDITFAU G 1512	r	12.6	MGL LGr 1759	r	>19.2	>18.5				
Arroyo del Val IV			MGL LGr 1762	r	—	19.5				
IVAU AR 257	..	12.9	La Chaîne-de-Fonds							
Sant Quirze			MNCF — juvenile	1	21.5	19.5				
MGSCB 48561	1	15.9	MNCF —	1	>21.1	21.8				
<u>MP III/IV distal</u>	<u>DAPd</u>	<u>DTd</u>	La Cisterniga							
<u>Ngurwe kijivium</u>			MNCF NM 1432	r	23.6	20.4				
Songhor			Sant Quirze							
KNM-SO 1973	r	9.2	MGSCB 48560	1	19.3	19.7				
<u>Lopholistriodon</u>			MGSCB —	1	>21.4	>22.5				
<u>L. moruoroti</u>			Hostalets							
Moruorot			CJFV 4447		23.3	21.2				
KNM-MO 49	r	8.6	CJFV —		22.6	21.1				
<u>Kubanochoerus</u>			<u>Phalange 1, II/V</u>	<u>DAPp</u>	<u>DTp</u>	<u>L</u>	<u>DAPd</u>	<u>DTd</u>		
<u>K. hussaini</u>			<u>Kubanochoerus</u>							
HGSP 8219			<u>K. khinzikebirus</u>							
HGSP 8219/1032	1	26.8	Karungu							
			KNM-KA 13180	1	12.7	12.9	34.9	+8.5	>8.5	
			<u>Bunolistriodon</u>							
			<u>B. lockharti</u>							
			Langenau I							
			SMNS 41240	r	9.5	8.7	20.6	6.0	8.3	
			<u>Listriodon</u>							
			<u>L. splendens</u>							
			Paşalar							
			PDITFAU F 494/5	r	11.9	10.9	29.1	8.5	7.8	
			PDITFAU F 587/5	r	—	—	—	8.5	7.8	
			PDITFAU G 2038	1	9.7	8.5	23.3	7.0	6.2	
			<u>Phalange 2, II/V</u>	<u>DAPp</u>	<u>DTp</u>	<u>L</u>	<u>DAPd</u>	<u>DTd</u>		
			<u>Kubanochoerus</u>							
			<u>K. hussaini</u>							
			HGSP 8311							
			HGSP 8311/1556	r	14.8	14.1	25.1	12.1	12.7	
			<u>Bunolistriodon</u>							
			<u>B. anchidens</u>							
			Rusinga Wayondo Fm.							
			KNM-RU 5530	r	11.9	11.0	16.9	9.2	9.7	
			<u>B. aff. latidens</u>							
			Tarazona							
			UPV T2.90	..	9.7	10.2	14.5	8.6	9.8	
			<u>B. M</u>							
			Paşalar							
			G 103	..	8.5	6.5	11.2	6.9	6.6	
			G 1166	..	8.7	7.4	10.7	7.3	6.8	
			<u>Listriodon</u>							
			<u>L. splendens</u>							
			Paşalar							
			PDITFAU F 494/6	r	10.3	8.2	13.9	9.2	7.7	
			<u>Phalange 3, II/V</u>	<u>DAPp</u>	<u>DAPps</u>	<u>DTp</u>	<u>L</u>			
			<u>Listriodon</u>							
			<u>L. splendens</u>							
			Paşalar							
			PDITFAU G 40	r	9.1	12.4	7.0	16.1		
			<u>Phalange 3, III/IV</u>	<u>DAPp</u>	<u>DAPps</u>	<u>DAPf</u>	<u>DTp</u>	<u>L</u>		
			<u>kubanochoerus</u>							
			<u>K. massaï</u>							
			Gebel Zelten							
			MNHP Z 1961	r	26.1	..	17.1	15.2	36.9	
			<u>Lopholistriodon</u>							
			<u>L. moruoroti/pickfordi</u>							
			Maboko							
			KNM-MB 10303	r	5.5	6.2	4.4	..		
			<u>Bunolistriodon</u>							
			<u>B. aff. latidens</u>							
			Tarazona							
			UPV T2.303	1	..	>22.3	14.7	14.4	—	
			UPV T 5.20	1	..	21.2	14.8	13.6	28.1	
			<u>B. lockharti</u>							
			Langenau I							
			SMNS 40682	r	23.0	..	..	15.0	32.9	

Phalange 3, III/IV	DAPp	DAPps	DAPF	DTp	L	Guboid	DAP	DT	Ha	H		
<u>Listriodon</u>						<u>B. lockharti</u>						
<u>L. splendens</u>						La Romieu						
Paşalar						UCBL 320312	1	29.4	21.8	>23.6	35.8	
PDIFAU F 150	r ..	23.0	13.7	—	37.9	Pellecahus						
PDIFAUG 1281	r ..	20.9	13.2	13.5	37.3	UCBL 320310	1	28.9	19.7	23.6	34.0	
La Grive						Buñol						
MGL LGr 470	1	21.9	22.9	17.1	13.8	PAN 54	r —	26.4	22.5	—		
MGL LGr 1763	r	21.2	22.4	21.2	13.6	33.0						
MGL LGr 1764	1	20.4	22.2	15.0	14.0	33.1						
La Chaux-de-Fonds						<u>Listriodon</u>						
MNCF —	1	25.8	20.7	18.8	14.9	39.3	<u>L. pentapotamiae</u>					
MNCF —	1	21.7	16.7	16.4	13.2	33.6	Kundal Nali					
<u>Fibula, distal part</u>						IVAU CHK 205						
<u>Bunolistriodon</u>						HGSP 8204						
<u>B. lockharti</u>						HGSP 8204/694						
Buñol						<u>L. splendens</u>						
—	r	20.2	13.0			Paşalar						
BE 9	1	19.6	12.6			PDIFAU G 103	r —	21.0	20.0	—		
<u>Navicular</u>						Çandır						
<u>Bunolistriodon</u>						MTA —						
<u>B. lockharti</u>						Arroyo del Val IV						
UCBL 320310	1	32.8	20.1	16.1	..	IVAU AR IV 112	1	>27.2	>21.4	21.3	—	
UCBL 320285	r	32.8	17.6	14.7	..	IVAU AR IV 154	1	—	>19.2	22.9	—	
UCBL 320293	r	>28.2	16.5	13.4	..	RGM 263.058	1	30.1	21.1	—	—	
NMB GB 1394	r	34.5	20.0	13.2	21.8	RGM 263.133	r	32.5	22.9	+23	—	
Grimmelfingen						La Chaux-de-Fonds						
NMB TD 718	r	30.0	17.2	11.1	>17.8	MNCF —	1	>28.9	23.6	19.2	—	
Buñol						MNCF —	r	30.0	24.3	18.8	35.2	
FBB 1.98	1	>33.7	21.8	18.9	..	MNCF —	r	29.9	24.6	18.3	—	
FBS 90	1	—	18.7	15.7	—	<u>MT II</u>						
—	1	>31.5	20.8	19.6	..	DAPp DTp L DAPd DTd						
<u>Listriodon</u>						<u>Kubanochoerus</u>						
<u>L. pentapotamiae</u>						<u>K. massai</u>						
Kali Nachi						Gebel Zelten						
IVAU QN 56	r	—	15.0	10.6	—	MNMP Z 1961	r	>13.2	>7.3	>117.2	12.8	8.5
Chinji Fm.						<u>Listriodon</u>						
bought specimen						<u>L. splendens</u>						
IVAU CH 346	r	28.4	16.9	>10.8	—	Çandır						
<u>L. splendens</u>						MTA —						
Paşalar							r	11.3	+5.8	78.9	15.3	+7.5
PDIFAU F 494/9	r	—	18.7	11.6	—	<u>MT V</u>						
PDIFAU G 1062	r	—	19.5	12.3	—	DAPp DTp L DAPd DTd						
PDIFAU G 1194	r	—	+19	10.8	—	<u>Listriodon</u>						
PDIFAU G 1527	r	—	>16.7	10.8	—	<u>L. splendens</u>						
Çandır						Çandır						
MTA —	r	34.7	22.0	12.1	25.4	MTA —	r	15.6	7.2	80.2	15.4	9.9
Arroyo del Val IV						La Grive						
MNCF —	r	—	19.9	11.3	—	MGL LGr 1757	1	—	6.7	75.7	15.4	9.9
La Cisterniga												
MNCF NM 1430	r	>29.1	>16.2	11.3	—							
La Grive												
NMB 2837	1	36.7	24.3	12.3	20.0							
MGL LGr 6008	r	34.3	22.1	12.9	21.6							
MGL LGr 6008	r	37.8	23.9	13.1	25.1							
MGL —	1	33.5	20.1	13.1	20.9							
La Chaux-de-Fonds												
MNCF —	1	>32.6	>21.0	11.1	—							
MNCF —	1	—	>19.4	12.0	—							
<u>Cuneiforme III</u>												
<u>Bunolistriodon</u>												
<u>B. lockharti</u>												
Pellecahus												
UCBL 320310	1	18.1	16.1									
<u>Listriodon</u>												
<u>L. splendens</u>												
Paşalar												
PDIFAU F 494/3	r	21.2	>13.9									
Çandır												
MTA —	r	18.2	15.7									
Paracuellos III												
MNCF PA 878	r	17.3	20.8									
Arroyo del Val IV												
IVAU AR IV 27	r	17.6	15.2									
<u>Guboid</u>												
<u>Kubanochoerus</u>												
<u>K. massai</u>												
Gebel Zelten												
MNMP Z 1961	r	33.9	21.6	30.0	45.0							
<u>Bunolistriodon</u>												
<u>B. aff. latidens</u>												
La Artesilla												
MPZ-6467	r	>23.9	>17.5	22.5	—							
Villafeliche "bocht"												
IVAU VLB/1	1	—	20.4	22.0	—							

TABLE 16 DMD' and DLL' values of the first and second lower incisors, as well as numbers of specimens, of Listriodontinae and selected other Suoidea. The values are calculated either from samples or from individuals.

	M ₁ n	I ₁ n	DMD' n	DLL'	I ₂ n	DMD' n	DLL'
<u>Kubanochoerus maryunngui</u>							
West Stephanie - Buluk	2				1	+77	+95
<u>Kubanochoerus massai</u>							
Gebel Zelten	10	5	58	3	64	10	64
<u>Kubanochoerus minheensis</u>							
Minhee IVPP V 6021	1	2	68	1	72	2	80
<u>Kubanochoerus gigas</u>							
Maerzuizigou BNHM BPV907	1	2	85	2	81	0	--
<u>Bunolistriodon anchidens</u>							
Rusinga	2	3	62	1	59	1	72
<u>Bunolistriodon C</u>							
Munébrega I	2	1	76	1	62	1	98
Armantes I	3	1	53	1	54	0	--
<u>Bunolistriodon latidens</u>							
Veltheim NSSW 99	2	2	86	1	61	1	106
<u>Bunolistriodon M</u>							
Paşalar	16	17	114	14	58	6	123
<u>Bunolistriodon lockharti</u>							
La Romieu	5	2	77	2	73	2	94
Baigneaux	2	1	62	1	70	5	89
<u>Listriodon pentapotamiae</u>							
Dhok Talian 189							
PMNH MV 31, 527	1	2	71	2	56	2	90
<u>Listriodon splendens</u>							
Paşalar	24	33	87	25	66	36	109
Çandır	7	4	81	4	66	2	91
Arroyo del Val IV	10	5	95	5	74	2	111
La Grive oc (mixed)	2	12	105	12	74	9	121
S. Quirze	2	8	105	8	71	7	131
Hostalets (mixed)	2	8	106	8	73	4	134
<u>T. tayacu</u>							
ZMA 470	1	1	47	1	60	1	51
ZMA 471	1	1	43	1	61	1	50
ZMA 472	1	1	49	1	56	1	50
ZMA 1838	1	1	46	1	60	1	57
ZMA 9377	1	1	48	1	63	1	54
ZMA 9380	1	1	44	1	64	1	52
ZMA 9393	1	1	51	1	64	1	56
ZMA 9382	1	1	53	1	63	1	58
ZMA 9384	1	1	47	1	67	1	46
ZMA 9387	1	1	44	1	68	1	50
ZMA 9388	1	1	45	1	65	1	52
ZMA 9394	1	1	49	1	61	--	--
ZMA 9539	1	1	41	1	62	1	53
ZMA 9541	1	1	51	1	65	1	47
ZMA 9604	1	1	44	1	55	1	45
ZMA 10512	1	1	44	1	51	1	48
ZMA 10513	1	1	37	1	51	1	--
<u>T. pecari</u>							
ZMA 476	1	1	47	1	55	1	44
ZMA 1835	1	0	--	1	55	1	47
ZMA 1836	1	1	37	1	54	1	55
ZMA 9391	1	1	49	1	56	0	--
<u>Palaeochoerus aquensis</u>							
Quercy	2	2	49	2	56	2	50
<u>Palaeochoerus typus</u>							
St.-Gérard-le-Puy							
MGL StG 690-691	2	1	48	1	60	0	--
<u>Kenyasus rusingensis</u>							
Rusinga	8	4	56	3	58	3	54
<u>Albanohyus castellensis</u>							
Castell de Barberà	4	4	62	4	79	3	67
<u>Hyotherium meisneri</u>							
Cetina	10	3	66	3	77	7	65
<u>Parachleuastochoerus steinheimensis</u>							
La Grive	7	14	52	12	84	6	62
<u>Propotamochoerus wui</u>							
Lufeng	19	12	52	6	81	9	52
<u>Microstonyx major</u>							
Spain	15	8	58	5	93	5	61
<u>Microstonyx erymanthius</u>							
Dorn Dürkheim	12	14	56	2	85	25	59
<u>Sus strozzii</u>							
Valdarno	21	15	54	13	86	12	66

TABLE 17 DMD' and DLL' values of the first and second upper incisors, as well as number of specimens. The values are calculated either from samples or from individuals.

	I ¹		I ²		I ¹		I ²		
	n	n	DMD' n	DLL'	n	DMD' n	DLL'		
<u>Kubanochoerus massai</u>									
Gebel Zelten		12	103	11	63	6	71	8	44
Gebel Zelten skull	1	1	109	1	63	1	64	1	40
<u>Kubanochoerus gigas</u>									
Maerzuizigou									
BNHM BPV-900	1	1	160	1	74				
BNHM BPV-910	1	1	166	1	..				
r	1	1	159	1	..				
<u>Nguruwe kijivium</u>									
Songhor	2	2	63	2	48	1	49	1	26
<u>Lopholistriodon moruoroti</u>									
Maboko	1	3	92	3	63	3	74	2	43
<u>Lopholistriodon kidogosana</u>									
Ngorora D	2	1	105	1	74				
Ngorora B5, 2/56	3					3	88	3	46
<u>Bunolistriodon anchidens</u>									
Rusinga	3	1	83	1	61	4	67	4	47
<u>Bunolistriodon aff. latidens</u>									
La Artesilla	2	3	101	4	64				
Armantes I	2	2	115	2	62				
<u>Bunolistriodon latidens</u>									
Inññ I	3	1	166	1	67				
<u>Bunolistriodon M</u>									
Paşalar	7	5	217	4	74				
<u>Bunolistriodon lockharti</u>									
La Romieu	3	3	97	3	78				
Baigneaux en Beauce	3	5	114	5	66				
<u>Listriodon splendens</u>									
Simorre MNHNP Si 156	1	2	151	1	76				
Paşalar	23	23	146	24	76				
Xinan IVPP V8283	1	1	116	1	+63	1	80	1	46
Arroyo del Val IV	8	5	148	6	68				
La Grive	11	11	155	10	73				
St. Quirze	3	5	157	6	71				
Castell de Barberà	2	5	174	4	73				
Hostalets	2	2	185	2	71				

TABLE 18 Indices of hypsodonty of the lower incisors, as well as index I of each tooth for Listriodontinae and selected other Suoidea.

I ₁	100x				I	I ₂	100x				I		
	HLI/DMD	HLA/DMD	HLI/DLL	HLA/DLL			HLI/DMD	HLA/DMD	HLI/DLL	HLA/DLL			
<u>Propalaeochoerus sp.</u>						<u>Propalaeochoerus sp.</u>							
<u>Tomerdingen</u>						<u>Tomerdingen</u>							
SMNS 45070	r	259	286	200	221	77	r	237	253	199	209	83	
<u>Tayassu pecari</u>							SMNS 45049	1	238	257	191	207	80
Recent ZMA 9321	r	234	267	203	231	87	SMNS 45050	1	235	265	174	196	74
<u>Tayassu tayacu</u>							SMNS 45051	1	222	200	174	200	78
Recent ZMA 472	1	216	216	190	190	88	<u>Tayassu pecari</u>						
ZMA 9380	1	240	245	166	169	69	Recent ZMA 1835	1	243	248	209	213	86
ZMA 9394	1	..	245	..	196	80	<u>Tayassu tayacu</u>						
ZMA 10513	1	+241	282	+173	203	72	Recent ZMA 472	1	264	260	198	195	75
<u>Hyotherium meisneri</u>							ZMA 9380	1	274	264	230	207	84
<u>Cetina de Aragon</u>							ZMA 9383	1	273	263	189	182	69
CT —	r	195	221	184	207	94	ZMA 9540	1	254	271	183	195	82
IPS 1401	1	—	234	—	<231	<98	<u>Hyotherium meisneri</u>						
<u>Xenohyus venitor</u>							<u>Cetina</u>						
<u>Faluns d'Anjou</u>							MNOC CT 469	1	249	293	187	220	75
MNHP cast	r	>130	>184	>220	>310	59	MNOC CT 469	r	+249	275	+184	204	74
<u>Kenyasus rusingensis</u>							MNOC CT —	1	230	254	182	201	79
<u>Rusinga R114</u>							MNOC CT —	r	—	241	—	—	—
KNM-Ru2745	r	284	278	268	262	94	<u>Xenohyus venitor</u>						
<u>Lopholistriodon pickfordi</u>							<u>Faluns d'Anjou</u>						
Maboko KNM-MB25	1	256	266	233	242	91	MNHP Fs 678	r	>217	>248	>165	>217	66
<u>Lopholistriodon kidogosana</u>							<u>Kenyasus rusingensis</u>						
Ngorora 2/56							<u>Rusinga R114</u>						
KNM-BN 548	1	137	+161	192	+225	140	KNM-Ru 2744	r	272	270	227	225	83
<u>Kubanochoerus minheensis</u>							<u>Kubanochoerus massai</u>						
<u>Nanhawangou</u>							<u>Gebel Zelten</u>						
IVPP V 6021	1	166	—	154	—	93	MNHP Z 1961	1	..	210	..	195	93
<u>Bunolistriodon aff. latidens</u>							MNHP Z 1961	r	186	190	167	171	90
<u>Olival da Suzana</u>							<u>Lopholistriodon pickfordi</u>						
CEPUNL —	r	..	149	..	181	122	<u>Maboko</u>						
<u>Bunolistriodon M</u>							KNM-MB 26	1	176	206	198	233	113
<u>Papalar</u>							KNM-MB 14446	r	—	259?	—	236?	110
PDIFAU G1718	r	124	138	243	271	215	KNM-MB 14448	1	194	239	177	218	91
PIMUZ BP-311	1	144	129	246	276	197	<u>Lopholistriodon akatidogae</u>						
<u>Bunolistriodon lockharti</u>							<u>Mbagathi</u>						
<u>Pellecahus</u>							KNM-MG 7	r	>102	113	>147	163	145
NMB GB 1387	r	146	171	159	171	109	<u>Kubanochoerus minheensis</u>						
<u>Listriodon pentapotamiae</u>							<u>Nanhawangou</u>						
<u>Cheski Wala</u>							IVPP V6021	1	149	—	150	—	101
IVAU GHC 93	1	128	142	177	196	139	<u>Bunolistriodon aff. latidens</u>						
<u>Listriodon splendens</u>							<u>Munébrega III</u>						
<u>Papalar</u>							IVAU 53/53	r	162	..	17.7	..	118
PDIFAU C361	r	139	146	174	182	125	<u>Bunolistriodon lockharti</u>						
PDIFAU D1031	1	139	143	190	195	137	<u>Balgnesux</u>						
PDIFAU D1031	r	139	144	193	199	138	MENO 904	r	166	172	169	175	102
PDIFAU DT8.6	1	124	136	171	188	138	CORO —	r	157	163	155	163	98
PDIFAU DT8.9	r	123	133	170	184	138	<u>Pontlevoy?</u>						
PDIFAU DT8.10	r	160	174	183	199	115	MNHP cast	1	133	132	150	148	112
PDIFAU F353	1	134	192	187	192	139	<u>Bunolistriodon intermedius</u>						
PDIFAU F409	1	—	146	—	202	139	<u>Maerzuizigou</u>						
PDIFAU G449	1	137	129	195	202	143	IVPP V 9522.7	1	+164	..	+199	..	121
PDIFAU G582.a	1	—	157	—	—	—	<u>Listriodon splendens</u>						
PDIFAU G1129	1	129	133	166	171	129	<u>Papalar</u>						
PDIFAU G1833.1	1	145	158	195	213	135	PDIFAU C8.11	r	116	—	178	—	154
<u>Arroyo del Val IV</u>							PDIFAU C224	1	120	126	173	181	144
IVAU AR IV 92	1	145	143	172	170	119	PDIFAU D1079	r	—	122	—	179	147
<u>La Grive</u>							PDIFAU DT9.1	1	125	126	177	179	142
IGF 299	1	110	118	172	185	156	<u>La Grive</u>						
MCL LGr 6004	1	110	119	153	166	139	IGF 299	1	122	117	171	163	140
MCL LGr 6004	r	120	123	165	170	137	MCL LGr 6003	1	99	103	165	171	166
<u>La Chaux-de-Fonds</u>													
MNCF 6	r	—	123	—	—	—							

TABLE 19 Enamel thickness Ta and Tp and ratios 1000 Ta/D_{Ta} and 1000 Tp/D_{Tp} in Listriodontinae.

		P ₄	Ta	1000 x	DTp	Tp	1000 x
		D _{Ta}		Ta/D _{Ta}			Tp/D _{Tp}
<u>B. aff. latidens</u>							
Armantes I	IVAU 41/516	1	12.6	1.7	134		
	IVAU 41/517	r	12.4	1.6	129		
<u>B. guptai</u>							
HGSP 8311	HGSP 8311/150	1	11.5	0.7	61		
<u>L. splendens</u>							
Arroyo del Val IV	IVAU AR IV 6	r	12.5	1.3	104		
	IVAU AR IV 16	.	..	1.2	..		
	RGM 263.040	1	12.9	1.4	109		
Arroyo del Val VI	IVAU AR VI 18	r	12.1	1.2	99		
Manchones I	IVAU MA 107	r	13.7	1.2	88		
		M ₁	Ta	1000 x	DTp	Tp	1000 x
		D _{Ta}		Ta/D _{Ta}			Tp/D _{Tp}
<u>K. massai</u>							
Gebel Zelten	MNHNP Z 1961	r	--	--	--	19.2	1.3
	MNHNP Z 1961	r	18.4	0.6	33	18.5	0.8
<u>B. aff. latidens</u>							
Armantes I	IVAU 41/513	1	12.8	0.8	63	13.7	0.8
Munebrega I	IVAU 55/1049	1	13.5	+1.0	+74	>13.5	--
	IVAU 55/1050	r	13.4	1.0	75	13.8	1.2
<u>B. lockharti</u>							
Avaray	MSNO 262	r	13.9	0.8	58	14.6	0.8
Pontlevoy	MNHNP FP 1062	r	--	1.0	--	15.4	--
<u>B. guptai</u>							
HGSP 8311	HGSP 8311/1406	1	14.1	0.7	50	14.6	1.0
HGSP 8412	HGSP 8412/3135	r	>15.3	--	--	15.3	1.2
<u>L. pentapotamiae</u>							
HGSP 8122	HGSP 8122/257	r	15.1	1.1	73	15.7	0.9
Kanatti	IVAU KA 79	r	--	--	--	--	0.7
Chinji Fm.	IVAU CH 28	1	--	--	--	12.0	0.9
<u>L. splendens</u>							
Arroyo del Val IV	IVAU AR IV 3	1	--	0.6	--	--	0.8
	IVAU AR IV 43	r	14.5	1.1	76	14.0	0.9
	IVAU AR IV 87	1	--	--	--	--	0.9
	IVAU AR IV 89	r	--	--	--	--	0.9
	RGM 263.036	1	--	--	--	13.7	0.9
Wien Heiligenstadt	NHMW SK 1666a	1	13.7	0.9	66	13.6	0.9
Escancrabe	MNHNP HGP 18	1	14.6	0.8	55	14.5	1.0
	MNHNP HGP 19	r	14.6	0.8	55	14.2	1.0
		M ₂	Ta	1000 x	DTp	Tp	1000 x
		D _{Ta}		Ta/D _{Ta}			Tp/D _{Tp}
<u>K. hussaini</u>							
Nyakach-Kaimogool E	KNM-NC 9807	r	--	--	--	37.5	2.1
<u>K. massai</u>							
Gebel Zelten	MNHNP Z 1961	1	--	1.2	--	22.5	1.7
	MNHNP Z 1961	1	24.3	2.0	82	25.0	2.2
	MNHNP Z 1961	r	24.6	1.6	65	24.2	1.8
	MNHNP Z 1961	r	22.3	2.2	99	23.8	2.2
	MNHNP Z 1961	r	22.6	1.8	80	22.8	1.9
	MNHNP Z 1961	1	24.3	1.9	78	24.5	2.0
	MNHNP Z 1961	1	22.5	1.8	80	22.8	2.0
<u>B. aff. latidens I</u>							
Armantes I	IVAU 41/513	1	17.3	1.7	98	17.5	1.8
	IVAU 41/514	1	18.1	1.4	77	>18.2	--
Munebrega I	IVAU 55/1049	1	16.9	--	--	17.4	1.8
	IVAU 55/1050	r	16.5	1.4	85	16.9	1.7
<u>B. lockharti</u>							
Chevilly	MSNO --	r	17.4	1.4	80	18.5	1.3
"Orléans"	MSNO --	r	18.0	1.1	61	18.8	1.2
Araya	MNHNP --	1	18.2	1.7	93	17.7	1.4
Pontlevoy	MNHNP FP 1062	r	17.9	1.4	78	18.8	..
<u>B. guptai</u>							
HGSP 8311	HGSP 8311/1406	1	18.3	1.6	87	18.4	1.2
HGSP 8222	HGSP 8222/1218	r	15.2	0.8	53	15.4	0.9
<u>L. pentapotamiae</u>							
HGSP 8122	HGSP 8122/257	r	15.1	1.1	74	18.3	1.1
Kanatti	IVAU KA 79	r	17.6	1.3	74	18.3	1.1
<u>L. splendens</u>							
Gers	MNHNP Ger 44	1	16.3	1.5	92	15.7	1.6
Villefranche d'Astarac	MNHNP VAS 11	1	15.8	1.4	89	16.2	1.3
Paracuellos III	MNCN PA 450	r	--	1.7	--	20.9	..
	MNCN PA 619	1	21.6	1.6	74	>19.2	..
Paracuellos V	MNCN PA V 569	1	17.6	1.4	80	17.5	1.6
Arroyo del Val IV	IVAU AR IV 1	.	..	1.4	..	..	1.5
	IVAU AR IV 2	r	--	1.1	--	--	1.5
	IVAU AR IV 3	1	--	1.1	--	16.8	1.5
	IVAU AR IV 4	r	17.6	1.3	74	16.8	1.5
	IVAU AR IV 7	r	19.3	--	--	>18.32	0
	IVAU AR IV 13	1	18	1.4	77	--	--
	IVAU AR IV 85	r	17	8	73	>17.91	1

	IVAU AR IV 87	1	--	--		18.0	1.8	100
	IVAU AR IV 89	r	18.8	1.6	85	18.1	1.7	94
	RGM 263.040	1	18.5	1.7	92	17.5	1.4	80
Manchones I	IVAU MA I 105	r	18.0	1.2	67	17.7	1.3	73
Escancrabe	MNHNP HGP 18	1	19.6	1.5	77	19.2	..	..
Wartenberg	IVAU P25-1963	r	18.1	1.6	88	18.5	1.6	86
Merisor	HGSB Ob 14	1	18.3	1.3	71	17.6	1.3	74
			M_3					
			DTa	Ta	1000 x			1000 x
					Ta/DTa	DTp	Tp	Tp/DTp
<u>K. massai</u>								
Gebel Zelten	MNHNP Z 1961	1	26.1	2.7	103	22.5	2.2	98
	MNHNP Z 1961	r	--	--	--	24.9	3.1	124
	MNHNP Z 1961	r	--	--	--	21.2	2.9	138
	MNHNP Z 1961	1	--	2.5	--	22.4	2.2	98
	MNHNP Z 1961	1	23.8	2.4	101	21.9	2.7	123
	MNHNP Z 1961	r	--	2.6	--	24.4	..	..
	MNHNP Z 1961	r	26.5	2.4	91	..	..	..
	MNHNP Z 1961	1	24.5	..	..	21.6	2.7	125
<u>B. aff. latidens I</u>								
Armantes I	IVAU 41/506	1	19.8	2.3	116	18.3	..	..
	IVAU 41/507	r	21.4	2.0	93	18.9	2.0	106
<u>B. lockharti</u>								
"Orléans"	MSNO 260	r	20.0	1.7	85	18.6	..	..
Araya	MNHNP --	1	19.3	2.1	109	17.8	2.1	118
<u>L. pentapotamiae</u>								
Kanatti	IVAU KA 79	r	20.6	1.8	87	19.2	1.7	89
Mochi Wala	IVAU CHO 126	r	--	--	--	16.7	1.7	102
	IVAU CHO 127	r	16.5	1.5	9.1	--	--	--
HGSP 8304	HGSP 8304/1333	r	18.0	1.4	78	17.4	1.3	75
<u>L. splendens</u>								
Arroyo del Val I	IVAU AR I 3	.	--	1.7	--	--	1.9	--
Arroyo del Val IV	IVAU AR IV 1	.	..	2.0	..	..	2.1	..
	IVAU AR IV 2	r	18.5	..	..	17.7	2.2	124
	IVAU AR IV 3	1	19.3	2.0	104	16.9	1.9	112
	IVAU AR IV 4	r	19.7	2.0	102	17.7	1.8	102
	IVAU AR IV 8	r	>20.4	2.0	<98	19.0	2.0	105
	IVAU AR IV 84	1	20.4	1.8	88	18.9	2.0	106
	IVAU AR IV 86	r	20.5	1.3	63	18.7	1.8	96
	RGM 263.035	1	--	..	--	17.5	2.3	131
Manchones I	IVAU MA I 104	r	21.1	2.2	104	18.7	2.1	112
Solera	IVAU --			2.2			2.1	
Larroque de Magnoa	MNHNP HGP 31	1	21.0	1.7	81	19.2	1.4	73
Wartenberg	IVAU P25-1963	r	19.9	1.8	90	19.1	..	..
Sooskút	NMW SK 1770a	1	19.8	1.9	96	18.3	1.6	8.7
			M_3					
			DTa	Ta	1000 x			1000 x
					Ta/DTa	DTp	Tp	Tp/DTp
<u>Kubanochoerus</u>								
<u>K. massai</u>								
Gebel Zelten	MNHNP Z 1961	r	--	1.9	--	23.2	1.4	60
	MNHNP Z 1961	r	+30.82.4		+78	26.9	2.2	82