

A new viewpoint on antlers reveals the evolutionary history of deer (Cervidae, Mammalia)

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Supplementary Information 6

Matrix of existence of the elements of all the specimens observed

Annotation

All specimens (except some of *Rangifer tarandus*) are males.

Abbreviations of the indices with the relation to the skull

SR	Supraorbital ridge on the pedicle
IFST	Impression of the frontal branch of the superficial temporal artery (medial branch)
TR	Temporal ridge on the pedicle
BN	Boundary of supraorbital and temporal nerve area

Symbols and numbers

○	Applicable or Existent
×	Nonexistent
(blank)	Unconfirmed or Nothing to describe in particular
—	Noncovered
1	Existent
0	Nonexistent
?	Unknown or Unsolved

Abbreviations of the museums and institutes

CBM	Natural History Museum and Institute, Chiba
HUBG	Botanic Garden, Hokkaido University
KPM	Kanagawa Prefecture Museum of Natural History
KUGM	Department of Geology and Mineralogy, Faculty of Science, Kyoto University
KUZ	The Kyoto University Museum
LBM	Lake Biwa Museum
NSMT	National Museum of Nature and Science
OMNH	Osaka Museum of Natural History
SMZ	Sapporo Maruyama Zoo
TG	Taga Town Museum
TUM	The Tohoku University Museum

<i>Cervus nippon</i> (Mature antlers)																									
Museum or Institute	Number	Floor deposited	Subspecies	Locality/Note	Specimen type	Right Left	SR	IFST	TR	BN	Base of antler														
											Base of antler	Brow tine	Brow process	Lower beam	Beam process	Trez tine	Trez-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine	Crown-back-inner tine			
KUGM	RM135			Cut antler	Antler	○	—	—	—	—	1	1	0	1	1	1	0	1	1	1	0	0			
KUGM	RM124				Skull, Antler	○	○	×	○	○	1	1	0	1	1	1	0	1	1	1	0	0			
						○	○	×	○	○	1	1	0	1	0	1	0	1	1	0	1	0			
KUGM	RM127				Antler (tip)	○	—	—	—	—	1	?	?	1	?	?	?	1	1	1	1	1			
KUGM	RM125			Shed antler	Antler	○	—	—	—	—	1	1	0	1	1	0	0	1	1	1	1	1			
KUGM	RM126		<i>C.n.yesoensis</i>	Mikasa, Hokkaido	Part of skull, Antler	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	0			
KUGM	RM001				Skull, Antler	○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
						○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
KUGM	RM005		<i>C.n.aplodontus</i>	Tamba	Skull, Antler	○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
						○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
KUGM	RM003		<i>C.n.aplodontus</i>	Yakuno, Kyoto	Skull, Antler	○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
						○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
KUGM	RM007		<i>C.n.aplodontus</i>	Kiyosumi, Chiba	Skull, Antler	○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
KUGM	RM091				Skull, Antler	○	?	?	?	?	1	1	0	1	0	1	0	1	1	1	0	0			
						○	?	?	?	?	1	1	0	1	0	1	0	1	0	0	0	0			
KUGM	RM004		<i>C.n.yesoensis</i>	Hidaka, Hokkaido	Skull, Antler	○	○	○	○	○	1	1	0	1	1	1	0	1	1	1	0	0			
						○	○	○	○	○	1	1	0	1	1	1	0	1	1	1	0	0			
KUGM	RM017		<i>C.n.yesoensis</i>	Nemuro, Hokkaido	Skull, Antler	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	0			
						○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	0			
KUGM	RM104				Skull, Antler	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
						○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
KUGM	RM018		<i>C.n.nippon</i>	Kagawa	Skull, Antler	○	○	×	○	○	1	1	0	1	0	1	0	1	1	1	0	0			
						○	○	×	○	○	1	1	0	1	1	1	0	1	1	1	0	0			
KUGM	RM016		<i>C.n.yesoensis</i>	Nemuro, Hokkaido	Skull, Antler	○	○	○	○	○	1	1	0	1	1	1	0	1	1	1	1	0			
						○	○	○	○	○	1	1	0	1	1	1	0	1	1	1	1	0			
KUGM	RM145				Antler	○					1	1	0	1	1	0	0	1	1	1	0	0			
						○					1	1	0	1	1	1	0	1	1	1	0	0			
HUBG	10278		<i>C.n.taiouanus</i>	Taiwan	Antler	○					1	1	0	1	0	1	0	1	1	1	1	0			
						○					1	1	0	1	0	1	0	1	1	1	1	0			
HUBG	13037		<i>C.n.taiouanus</i>	Taiwan	Antler	○					1	1	0	1	0	1	0	1	1	1	1	0			
						○					1	1	0	1	0	1	0	1	?	?	?	?			
HUBG	10279			China	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M43312	1F	<i>C.n.hortulorum</i>	Ussuri	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M43307	1F	<i>C.n.yesoensis</i>	Hokkaido	Antler	○					1	1	0	1	1	1	0	1	1	1	1	0			
						○					1	1	0	1	1	1	0	1	1	1	1	0			
NSMT	M43313	1F	<i>C.n.taiouanus</i>	Taiwan	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M21192	1F	<i>C.n.taiouanus</i>	Taiwan	Antler + Skull	○					1	0	0	1	0	0	0	1	0	1	1	1			
NSMT	M01158	1F	<i>C.n.taiouanus</i>	Taiwan	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M01156	1F	<i>C.n.mantchuricus</i>	Mauchu	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M43306	1F	<i>C.n.aplodontus</i>	Shimotsuke (Tochigi)	Antler	○					1	1	0	1	1	1	0	1	1	1	0	0			
						○					1	1	0	1	1	1	0	1	1	1	0	0			
NSMT	M43317	1F	<i>C.n.aplodontus</i>	Iwami (Shimane)	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			
NSMT	M43321	1F	<i>C.n.nippon</i>	Iyo (Ehime)	Antler	○					1	1	0	1	0	1	0	1	1	1	0	0			
						○					1	1	0	1	0	1	0	1	1	1	0	0			

Colored tines (two out of Crown-inner tine, Crown-outer tine, and Crown-back tine) join together more distally than the other of the three.

<i>Cervus nippon</i> (mature antlers)(continued)																											
Museum or Institute	Number	Floor repositd	Subspecies	Locality/Note	Specimen type	Right	Left	SR	FBST/AMI	TR	BV	Base of antler	Brow tine	Brow process	Lower beam	Beam process	Trez tine	Trez-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine	Crown-back-inner tine	Crown-back-back tine			
NSMT	M43322	1F	<i>C.n.aplodontus</i>	Izu (Shizuoka)	Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M43321	1F	<i>C.n.aplodontus</i>	Yamashiro (Kyoto)	Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M43316	1F	<i>C.n.aplodontus</i>	Shimotsuke (Tochigi)	Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M43314	1F	<i>C.n.nippon</i>	Kagoshima	Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M47189	1F	<i>C.nippon.yakushimae</i>	Yakushima	Skull・Antler	○	○					1	1	0	1	0	1	0	1	0	0	0	0	0			
						○	○					1	1	0	1	0	1	0	1	0	0	0	0				
NSMT	M14306	1F	<i>C.n.pulchellus</i>	Tsushima	Skull・Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M13693	1F	<i>C.n.pulchellus</i>	Tsushima	Skull・Antler	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	No number	7F			Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	1	1	0	1	0	1	1	1	0	0	0			
NSMT	No number	7F		Tsushima?	Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M42803	7F	<i>C.n.yesoensis</i>	Yubari, Hokkaido	Stuffing	○	○	—	—	—	—	1	1	1	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	1	1	0	1	0	1	1	1	0	0	0			
NSMT	M37524	7F	<i>C.n.yesoensis</i>	Hidaka, Hokkaido	Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M37523	7F	<i>C.n.yesoensis</i>	Hidaka, Hokkaido	Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M50096	7F		Nikko, Tochigi	Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
NSMT	M49973	7F			Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	0	0	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
CBM	ZZ0001202		<i>C.n.nippon</i>	Kimitsu, Chiba	Antler・Skull	○	○					1	1	0	1	0	1	0	1	0	0	0	0	0			
						○	○					1	1	0	1	0	1	0	1	0	0	0	0	0			
CBM	ZZ0001182		<i>C.n.nippon</i>	Amatsukominato, Chiba	Antler・Skull	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
CBM	No number	Displayed			Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	1	1	1			
CBM	ZZ0000828				Complete skeleton	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	1	1	0	1	1	1	0	0	0			
CBM	ZZ0000618		<i>C.n.nippon</i>	Amatsukominato, Chiba	Antler・Skull	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
CBM	ZZ0000238		<i>C.n.nippon</i>	Amatsukominato, Chiba	Antler・Skull	○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○					1	1	0	1	0	1	0	1	1	1	0	0	0			
CBM	ZZ0001116		<i>C.n.nippon</i>	Amatsukominato, Chiba	Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
CBM	ZZ0005971		<i>C.n.yesoensis</i>		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	0	1	0	0	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	0	0	0	0	0			
TZP	Displayed in <i>C.nippon</i> area		<i>C.n.yesoensis</i>	Yakushima	Antler	○	○	—	—	—	—	1	1	0	1	0	1	0	1	0	0	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	0	0	0	0	0			
TZP	Displayed in <i>C.nippon</i> area		<i>C.n.pulchellus</i>	Honshu	Antler	○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			
						○	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0	0			

Colored tines (two out of Crown-inner tine, Crown-outer tine, and Crown-back tine) join together more distally than the other of the three.

<i>Cervus nippon</i> (mature antlers)(continued)																								
Museum or Institute	Number	Floor repositod	Subspecies	Locality/Note	Specimen type	Right Left	SR	FBSTAMI	TR	BN														
											Base of antler	Brow tine	Brow process	Lower beam	Beam process	Trez tine	Trez-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine	Crown-back-inner tine	Crown-back-back tine	
TZP	Displayed in <i>C.nippon</i> area		<i>C.n.yesoensis</i>	Hokkaido	Antler	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	1 0	1 0	1 1	0 0	1 1	1 1	1 1	0 0	0 0		
SMZ	4th from the right	1F Displayed			Skull+Antler	○ ○	○ ○		○ ○		1 1	1 1	0 0	1 0	1 0	1 1	0 1	1 1	1 1	0 0	0 0			
SMZ	5th from the right	1F Displayed			Skull+Antler	○ ○	○ ○		○ ○		1 1	1 1	0 0	1 0	1 0	1 1	0 1	1 1	1 1	0 0	0 0			
SMZ		2F Displayed	<i>C.n.yesoensis</i>	Hokkaido	Velvet antler	○	—	—	—	—	1	1	0	1	0	1	1	1	Before completion					
SMZ		2F Displayed	<i>C.n.aplodontus</i>	Honshu	Antler	○	—	—	—	—	1	1	0	1	1	1	0	1	1	1	0	0		
SMZ		2F Displayed	<i>C.n.yesoensis</i>	Hokkaido	Antler+Skull	○ ○					1 1	1 1	0 0	1 0	1 0	1 1	0 1	1 1	1 1	0 0	0 0			
SMZ		2F Displayed	<i>C.n.yesoensis</i>		Antler	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0		
KUGM	RM213				Antler	○	—	—	—	—	1	1	0	1	0	1	0	1	1	1	0	0		
											Sum	111	109	3	111	17	107	1	111	98	98	22	4	4
											Percentage	100%	98%	3%	100%	15%	96%	1%	100%	90%	90%	20%	4%	4%

<i>Cervus nippon</i> (Juvenile antlers)																									
Museum or Institute	Number	Floor deposited	Subspecies	Locality	Note	Specimen type	Right	Left	SP	IPST	TR	BN	Base of antler	Brow tine	Brow process	Lower beam	Beam process	Troz tine	Troz-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine		
KUGM	RM008		<i>C.n.yessoensis</i>		Juvenile (estimated 2-3 years old)	Skull, Antler	○	○	○	×	○	○	1	1	0	1	0	1	0	1	0	0	0	○	○
							○	○	○	×	○	○	1	1	0	1	0	1	0	1	0	0	0	○	○
KUGM	RM009		<i>C.n.yessoensis</i>		Juvenile (estimated 1-2 years old)	Skull, Antler	○	○	○	○	○	○	1	1	0	1	0	0	0	0	0	0	0	○	○
							○	○	○	×	○	○	1	1	0	1	0	0	0	0	0	0	0	○	○
KUGM	RM006		<i>C.n.yessoensis</i>		Juvenile (estimated 1-2 years old)	Skull, Antler	○	○	○	×	○	○	1	0	0	0	0	0	0	0	0	0	0	○	○
							○	○	○	×	○	○	1	0	0	0	0	0	0	0	0	0	0	○	○
NSMT	M23151				Juvenile	Stuffing	○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
							○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
NSMT	No number				Juvenile	Head stuffing	○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
							○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
CBM	ZZ0002037		<i>C.n.aplodontus</i>	Kimitsu, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	1	0	1	0	1	0	1	1	1	1	○	○
							○	○					1	1	0	1	0	1	0	1	1	1	1	○	○
CBM	ZZ0001967		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	1	0	1	0	1	0	1	1	1	1	○	○
							○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
CBM	ZZ0001776		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
							○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
CBM	ZZ0001570		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
							○	○					1	1	0	1	0	1	0	1	0	0	0	○	○
CBM	ZZ0001775		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	0	0	1	0	0	0	1	0	0	0	○	○
							○	○					1	0	0	1	0	0	0	1	0	0	0	○	○
CBM	ZZ0001679		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (1 years old)	Skull, Antler	○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
							○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
CBM	ZZ0001516		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	0	0	1	0	0	0	1	0	0	0	○	○
							○	○					1	0	0	1	0	1	0	1	0	0	0	○	○
CBM	ZZ0001553		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (1 years old)	Skull, Antler	○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
							○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
CBM	ZZ0001313		<i>C.n.aplodontus</i>	Kamogawa, Chiba	Juvenile (2 years old)	Skull, Antler	○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
							○	○					1	0	0	1?	0	0	0	0	0	0	0	○	○
CBM	ZZ0001774		<i>C.n.aplodontus</i>	Kominato, Chiba	Juvenile (3 years old)	Skull, Antler	○	○					1	1	0	1	0	1	0	1	1	1	1	○	○
							○	○					1	1	0	1	0	1	0	1	1	1	1	○	○
SMZ	1st from the right	1F displayed	<i>C.n.yessoensis</i>		Juvenile (1-2 years old)	Skull, Antler	○	○	○	○	○	○	1	0	0	0	0	0	0	0	0	0	0	○	○
							○	○	○	○	○	○	1	0	0	0	0	0	0	0	0	0	0	○	○
SMZ	2nd from the right	1F displayed	<i>C.n.yessoensis</i>		Juvenile (2-3 years old)	Skull, Antler	○	○	○	○	○	○	1	0	0	1	0	1	0	1	1	1	1	○	○
							○	○	○	○	○	○	1	1	0	1	0	0	0	0	0	0	0	○	○
SMZ	3rd from the right	1F displayed	<i>C.n.yessoensis</i>		Juvenile (3-4 years old)	Skull, Antler	○	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	○	○
							○	○	○	○	○	○	1	1	0	1	1	0	0	1	1	1	1	○	○

<i>Cervus canadensis</i>																								
Museum or Institute	Number	Reposited room	Note	Specimen type	Right	Left	SR	IFST	TR	BN	Base of antler	Brow tine	Brow process	Lower beam	Beam process	Bez tine	Trez tine	Trez-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine	Crown-back-inner tine	Crown-back-back tine
KUGM	RM109			Antler	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							1	1	0	1	1	1	0	1	0	1	1	0	1	0	?	1	?	?
NSMT	M43324	1F		Antler,Skull	○	○	○	○	○	○	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							1	1	0	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1
NSMT	M03810	1F		Antler	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
NSMT	M43309	1F	Juvenile?	Antler	○	○	—	—	—	—	1	1	0	1	1	1	1	0	1	0	1	1	0	0
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	0	0
NSMT	M07538	1F		Antler	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	0
							1	1	0	1	1	1	0	1	0	1	1	0	1	0	1	1	1	0
NSMT	M01164	1F		Antler	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	0
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	0
NSMT	M01167	1F		Antler	○	○	—	—	—	—	1	1	1	1	0	1	1	0	1	0	1	1	1	0
							1	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	0
NSMT	M01165	1F		Antler	○	○	—	—	—	—	1	1	1	1	0	1	1	0	1	0	1	1	1	0
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	0
NSMT	M42710	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
NSMT	M32034	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	1	1	1	1	1
							1	1	0	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1
NSMT	M01094	7F	Velvet antlers	Stuffing head	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	1	1	1	1	1
							1	1	0	1	1	1	0	1	0	1	1	0	1	1	1	1	1	1
NSMT	M39878	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	1	1	1	0	1	0	1	1	1	1
							1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1
NSMT	M39877	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							1	1	0	1	0	1	1	0	1	1	0	1	0	1	1	1	1	1
NSMT	M39876	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							1	1	0	1	0	1	1	0	1	1	0	1	0	1	1	1	1	1
NSMT	M32353	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							1	1	0	1	0	1	1	0	1	1	0	1	0	1	1	1	1	1
NSMT	M56402	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
							—	—	—	—	1	1	0	1	0	1	1	0	1	0	1	1	1	1
NSMT	M56403	7F		Stuffing	○	○	—	—	—	—	1	1	0	1	1	1	1	0	1	0	1	1	1	1
							—	—	—	—	1	1	0	1	1	1	1	0	1	0	1	1	1	1
TUM	No number		from Kashmir	Antler	○	○	○	○	○	○	1	1	1	1	1	1	1	0	1	0	1	1	1	1
							1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1
Sum (excluding "Juvenile(?)")							34	34	4	34	6	34	34	0	34	3	33	34	33	25				
Percentage (excluding "Juvenile(?)")							100%	100%	12%	100%	18%	100%	100%	0%	100%	9%	97%	100%	97%	74%				

 Colored tines (two out of Crown-inner tine, Crown-outer tine, and Crown-back tine) join together more distally than the other of the three.

<i>Cervus elaphus</i>																									
Museum or Institute	Number	Reposited room	Note	Specimen type	R	L	SR	FBST/AMI	TR	RN	Base of antler	Brow tine	Brow process	Beam process	Lower beam	Bez tine	Trez tine	Trez-beam process	Higher beam	Crown-outer tine	Crown-inner tine	Crown-back tine	Crown-back-inner tine	Crown-back-outer tine	
KUGM	019		Juvenile	Antler + Skull	○	○	○	×	○	○	1	1	0	0	1	0	1	0	1	1	1	0	0	0	
KUGM	048			Antler	○	○	×	○	○	○	1	1	0	0	1	0	1	0	1	1	1	0	0	0	
KUGM	132			Antler	○	○	×	○	○	○	1	1	0	0	1	1	1	0	1	1	1	1	0	0	
NSMT	43318	1F	Juvenile?		○	○	?	?	?	?	1	1	0	0	1	1	1	0	1	0	0	0	0	0	
NSMT	1162	1F	Scottish red deer	Antler	○	○	?	?	?	?	1	1	0	0	1	1	1	0	1	0	0	0	0	0	
NSMT	43325	1F	Only "Cervus" is written. Estimated to be <i>C.elaphus</i>	Stuffing	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	1	0	0	0	
NSMT	32195	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	1	1	0	1	
NSMT	56408	7F	Distal branch is covered with cushioning material	Stuffing	○	○	—	—	—	—	1	1	0	1	1	1	1	0	1	?	?	?	?	?	
NSMT	56401	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	0	1	1	1	
NSMT	32006	7F		Stuffing	○	○	—	—	—	—	1	1	0	?	1	1	1	0	1	1	1	0	0	0	
NSMT	No number	7F	The face is in ragged	Stuffing	○	○	—	—	—	—	1	1	0	1	1	1	1	0	1	1	1	1	1	0	
NSMT	1163	7F	German red deer	Antler	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	0	1	1	0	1	
NSMT	32194	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	0	1	1	0	1	
LBM	1900000213			Antler	○	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	0	1	0	1	
TUM	No number	2F	From South Pacific Mandate	Antler	○	○	○	—	—	—	1	1	0	0	1	1	1	0	1	0	1	1	0	0	
TUM	No number	1F	Displayed	Antler	○	○	○	—	—	—	1	1	0	0	1	1	1	0	1	1	1	1	1	0	
Sum (excluding "Juvenile" and "Juvenile?")											27	27	0	7	27	27	27	0	27	19	16	23	12	8	8
Percentage (excluding "Juvenile" and "Juvenile?")											100%	100%	0%	26%	100%	100%	100%	0%	100%	79%	67%	96%	52%	35%	35%

Colored tines (two out of Crown-inner tine, Crown-outer tine, and Crown-back tine) join together more distally than the other of the three.

<i>Rusa unicolor</i>																									
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	IFST	IR	BN	Base of antler	Brow time	Brow process	Brow-medial line	Bez time	Lower beam	Beam process	Trez time	Trez-beam process	Higher beam	Crown-outer time	Crown-inner time	Crown-back time	Crown-back-inner time	Crown-back-back time
KUGM	RM020			Antler, Skull	○	○	○	○	○	○	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
KUGM	RM039			Antler, Skull	○	○	○	○	○	○	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
KUGM	RM137			Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
KUGM	RM139			Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
KUGM	RM140			Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
KUGM	RM138			Antler, Skull (half)	○	○	○	?	○	?	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M01146	1F		Antler, Skull	○	○					1	1	1	1	0	1	1	1	0	1	0	0	0	0	0
NSMT	M01147	1F		Antler	○	○					1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M08939	1F		Antler, Skull	○	○					1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M08932	1F		Antler, Skull	○	○					1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M08950	1F		Antler, Skull	○	○					1	1	0	0	0	1	0	1	0	1	1	1	1	0	0
NSMT	M34316	1F		Antler, Skull	○	○					1	1	0	0	0	1	0	1	0	1	1	1	0	0	0
NSMT	M09624	1F		Antler, Skull	○	○					1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M36067	1F	Painted blue	Antler, Skull	○	○					1	1	1	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M01849	1F		Antler	○	○	—	—	—	—	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M08955	1F		Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M08949	1F		Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M43318	1F	From Borneo	Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	1	1	0	0	0	0	0
NSMT	M43308	1F		Antler	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M32196	7F		Stuffing	○	○	—	—	—	—	1	1	1	0	0	1	0	1	1	1	0	0	0	0	0
NSMT	No number	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M32138	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
NSMT	M05986	7F		Stuffing	○	○	—	—	—	—	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
OMNH	M0435			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
HUBG	10290			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	0	1	0	0	0	0	0

Rusa unicolor (continued)																									
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left					Base of antler	Brow line	Brow process	Brow-medial line	Bez line	Lower beam	Beam process	Trez line	Trez-beam process	Higher beam	Crown-outer line	Crown-inner line	Crown-back line	Crown-back-inner line	
							SR	IPST	TR	BN															
HUBG	10294			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
											1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
HUBG	32836			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
											1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
HUBG	10276			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
											1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
LBM	1990000008			Antler, Skull	○	○	○				1	1	0	0	0	1	0	1	1	1	0	0	0	0	0
											1	1	0	0	0	1	0	1	0	1	0	0	0	0	0
LBM	1990000003			Antler, Skull	○	○	○				1	1	0	0	1	1	0	1	0	1	0	0	0	0	0
											1	1	0	1	1	1	0	1	0	1	0	0	0	0	0
Sum							62	62	7	5	2	62	3	62	5	100%	100%	6	62	4	2	3	0	0	
Percentage							100%	100%	11%	8%	3%	100%	5%	100%	100%	100%	10%	100%	6%	3%	3%	0%	0%	0%	

<i>Rusa timorensis</i>																			
Museum or Institute	Number	Reposited floor	Specimen type	Right	Left	SR	JPST	TR	DN	Base of antler	Brow line	Brow process	Brow-medial line	Lower beam	Rez line	Trez line	Trez-beam process	Higher beam	
KUGM	RM021		Antler, Skull	○		○	○	○	○	1	1	0	0	1	0	1	0	1	
				○		○	○	○	○	1	1	0	0	1	0	1	0	1	
TG	TK-0152		Antler, Skull	○		○				1	1	0	0	1	0	1	0	1	
				○		○				1	1	0	0	1	0	1	0	1	
Sum										4	4	0	0	4	0	4	0	4	
Percentage										100%	100%	0%	0%	100%	0%	100%	0%	100%	

<i>Rusa marianna</i>																			
Museum or Institute	Number	Reposited floor	Specimen type	Right	Left	SR	IFST	TR	DR	Base of antler		Brow line	Brow process	Brow-medial line	Lower beam	Bez line	Trez line	Trez-beam process	Higher beam
NSMT	M26698	1F	Antler, Skull	○	○	○	○	○	○	1	1	0	0	1	0	1	0	1	
HUBG	10291		Antler	○		○		○		1	1	0	0	1	0	1	1	1	
				○			○		1	1	0	0	1	0	1	0	1		
NSMT	M08423	1F	Antler	○		○	○	○	○	1	1	0	0	1	0	1	0	1	
				○		○	○	○	○	1	1	0	1	1	0	1	0	1	
Sum						6	6	0	1	6	6	0	1	6	6	1	6		
Percentage						100%	100%	0%	17%	100%	0%	17%	100%	0%	100%	17%	100%		

<i>Rusa</i> sp.																							
Museum or Institute	Number	Note	Specimen type	Right	Left	SK	IPST	TR	DN	Base of antler	Brow line	Brow process	Brow-medial line	Bez line	Lower beam	Beam process	Sub-medial line	Trez line	Trez-beam process	Higher beam	Crown-outer line	Crown-inner line	Crown-back line
KUGM	RM210	With mutilpe processes	Antler, Skull	○	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	0	0	0
				○	○	○	○	○	○	1	1	0	1	0	1	0	1	1	1	1	0	0	0
KUGM	RM211		Antler, Skull	○	?	?	?	?	?	1	1	0	0	0	0	0	1	1	0	1	0	0	0
				○	?	?	?	?	?	1	1	0	0	0	0	0	1	1	1	1	0	0	0
KUGM	RM212		Antler, Skull	○	○	○	○	○	○	1	1	0	0	0	0	0	0	1	0	1	0	0	0
				○	○	○	○	○	○	1	1	0	0	0	0	0	1	1	0	1	0	0	0

<i>Elaphurus davidianus</i>																								
Museum or Institute	Number	Reposited floor or place	Note	Specimen type	Right	Left	SR	IPST	TR	BN	Base of antler	Brow time	Brow outer time	Brow inner time	Brow process	Lower beam	Bez time	Beam process	Medial time	Trez time	Higher beam	Pre-cornual times	Pre-trez times	
GMNS	RM022			Skull, Antler	○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	0	0	
					○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	0	0	
GMNS	RM041			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	0	
GMNS	RM042			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	1	
GMNS	RM043			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	1	
GMNS	RM044			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	1	1	
					○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	1	1	
GMNS	RM153			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	1	
GMNS	RM154			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	1	
GMNS	RM155			Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	0	0	
NSMT	M00464	from Qing dynasty		Complete skeleton	○	○	○	×	○	○	1	1	1	1	0	1	0	0	1	0	?	0	0	
					○	○	○	×	○	○	1	1	1	1	0	1	0	0	1	1	1	0	0	
NSMT	M00425	1F	from Qing dynasty	Antler	○	—	—	—	—	—	1	1	1	1	0	1	0	0	0	0	1	1	0	
					○	—	—	—	—	—	1	1	1	1	0	1	0	0	1?	0	1	0	0	
NSMT	M01168	1F		Antler, Skull	○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	1	1	
					○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	0	1	
NSMT	M38630	1F		Antler, Skull	○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	1	0	
					○	○	○	×	○	○	1	1	1	1	0	1	0	0	0	0	1	1	0	
Sum											18	18	18	18	0	18	0	0	2	1	17	6	8	
Percentage											100%	100%	100%	100%	0%	100%	0%	0%	11%	6%	100%	33%	44%	

<i>Panolia eldii</i>																					
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	IPST	TR	BN	Base of antler		Brow time	Brow process	Lower beam	Beam process	Medial time	Trez time	Cornual time	Pre-cornual time	Higher beam
LBM	1990000009=1990000010		Replicas of the same individual	Skull, Antler	○	○	—	—	—	—	1	1	1	1	1	1	1	0	1	0	1
						○	○	—	—	—	—	1	1	1	1	1	1	0	1	1	1
OMNH	M2034			Skull, Antler	○	○	○	○	○	○	1	1	1	1	1	0	1	0	1	0	1
					○	○	○	○	○	○	1	1	1	1	1	0	1	0	1	0	1
HUBG	10286			Antler	○	○	○	○	○	○	1	1	1	1	1	1	1	0	1	1	1
					○	○	○	○	○	○	1	1	1	1	1	1	1	0	1	1	1
NSMT	M01153	1F		Antler	○	○	○	○	○	○	1	1	1	1	1	1	1	0	1	1	1
					○	○	○	○	○	○	1	1	1	1	1	1	1	0	1	1	1
NSMT	M01155	1F		Antler	○	○	○	○	○	○	1	1	2	1	0	1	0	1	1	1	1
					○	○	○	○	○	○	1	1	1	1	0	1	0	1	1	1	1
NSMT	M01154	7F		Stuffing	○	—	—	—	—	—	1	1	0	1	0	1	0	1	1	1	1
					○	—	—	—	—	—	1	1	1	1	0	1	0	1	0	1	1
Sum											12	12	12	12	12	6	12	0	12	8	12
Percentage											100%	100%	100%	100%	50%	100%	0%	100%	67%	100%	

<i>Dama dama</i> (Mature antlers)																												
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	IFST	TR	BN	Base of antler	Brow line	Brow process	Lower beam	Beam process	Post beam process	Bez time	Trez time	Trez-beam process	Higher beam	Guard time	Crown-outer time	Crown-inner time	Crown-inner time bifurcation	Crown-back time	Crown-back-inner time	Crown-back-back time	Higher beam and its distal time palmation
KUGM	RM011			Skull, Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	0	0	1	1	1	0	0	1
KUGM	RM010			Skull, Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	0	0	1	1	1	0	0	1
KUGM	RM045			Antler	○	○	○	×	×	○	1	1	0	1	0	0	1	1	0	1	1	0	1	1	1	1	0	1
KUGM	RM133			Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1
KUGM	RM143			Antler	○	○	○	×	×	○	1	1	0	1	1	0	1	0	0	1	1	0	1	1	1	1	1	1
KUGM	RM144			Antler	○	○	○	×	×	○	1	1	0	1	0	1	0	1	0	1	1	0	1	1	1	1	1	1
KUGM	RM107			Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	0	0	1	1	1	1	0	1
LBM	190000787			Skull, Antler	○	○	○	×	×	○	1	1	0	1	0	1	0	1	0	1	1	0	1	1	1	1	0	1
NSMT	M32070	7F		Stuffing	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1
NSMT	M32192	7F		Stuffing	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	0	0	1
NSMT	M56407	7F		Head Stuffing	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1
NSMT	No number	7F	Lamp (Upper)	Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	0	0	1	1
NSMT	No number	7F	Lamp (Lower)	Antler	○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	0	0	1	1
					○	○	○	×	×	○	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1
							Sum				22	22	0	22	2	3	2	21	1	22	18	1	22	22	19	10	9	22
							Percentage				100%	100%	0%	100%	9%	14%	9%	95%	5%	100%	82%	5%	100%	100%	86%	45%	41%	100%

<i>Dama dama</i> (Juvenile antlers)																													
Museum or Institute	Number	Note	Specimen type	Right	Left																								
						SR	IFST	TR	BN	Base of antler	Brow line	Brow process	Lower beam	Beam process	Post beam process	Bez time	Trez time	Trez-beam process	Higher beam	Guard time	Crown-outer time	Crown-inner time	Crown-inner time bifurcation	Crown-back time	Crown-back-inner time	Crown-back-back time	Higher beam and its distal times palmarion		
KUGM	RM056	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	1	1	0
KUGM	RM200	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	0
KUGM	RM201	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0
KUGM	RM202	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	0	1	1	1	0	0
KUGM	RM203	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	0
KUGM	RM204	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0
KUGM	RM205	Juvenile	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	0	1	0	0	0	1	?	1	1	1	0	0

<i>Axis porcinus</i>																
Museum or Institute	Number	Reposited floor	Specimen type	Right Left	SVL	IFST	TR	DV	Base of antler		Brow line	Brow process	Lower beam	Beam process	Treaz line	Higher beam
NSMT	M19849	1F	Skull, Antler	○ ○	○ ○	○ ○	○ ○	○ ○	1	1	0	1	0	1	1	1
					○ ○	○ ○	○ ○	○ ○	1	1	0	1	0	1	1	1
Sum									2	2	0	2	0	2	2	
Percentage									100%	100%	0%	100%	0%	100%	100%	100%

<i>Rucervus schomburgki</i>																					
Museum or Institute	Number	Reposited floor	Specimen type	Right	Left																
						SR	FBSTAMI	TR	BN	Base of antler	Brow time	Brow process	Lower beam	Beam process	Vertical beam	Vertical 1st time	Vertical 2nd time	Back beam	Back 1st time	Back 2nd time	
NSMT	M43311	1F	Skull, Antler	○	○	○	○	○	○	1	1	0	1	0	1	1	1	1	1	1	
				○	○	○	○	○	○	1	1	0	1	0	1	1	1	1	1	1	
NSMT	M01151	1F	Antler	○	○	○	○	○	○	1	1	0	1	0	1	1	1	1	1	1	
				○	○	○	○	○	○	1	1	0	1	0	1	1	1	1	1	1	
Sum										4	4	0	4	0	4	4	4	4	4	4	
Percentag										100%	100%	0%	100%	0%	100%	100%	100%	100%	100%	100%	

<i>Elaphodus cephalophus</i>										
Museum or Institute	Number	Specimen type	Right	Left	SR	JVST	TR	BN	Base of antler	
KPM	No number	Antler, Skull	○		○	○	○	○	1	
				○	○	○	○		1	
								Sum	2	
								Percentage	100%	

<i>Muntiacus reevesi</i>												
Museum or Institute	Number	Reposited floor/Note	Specimen type	Right	Left	SR	IPST	TR	BN	Base of antler	Brow time	Lower beam
KUGM	RM024		Antler · skull	○	○	○	○	○	○	1	1	1
KUGM	RM026		Antler · skull	○	○	○	○	○	○	1	1	1
NSMT	M43315	1F	Antler	○	—	—	—	—	—	1	1	1
	(Upper)			○	—	—	—	—	—	1	1	1
NSMT	M43315	1F	Antler	○	—	—	—	—	—	1	1	1
	(Lower)			○	—	—	—	—	—	1	1	1
CBM	ZZ0004650	1F	Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004982	1F	Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0005697	1F	Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0003058	1F	Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0005820		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0005700		Antler · skull	○	○					1	0	1
				○	○					1	1	1
CBM	ZZ0005689		Antler · skull	○	○					1	0	1
				○	○					1	1	1
CBM	ZZ0004663		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004638		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004636		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004679		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004669		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0003059		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0006103		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0006096		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	IM9	Isumi, Chiba	Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0006097		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0006130		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004648		Antler · skull	○	○					1	1	1
				○	○					1	1	1
CBM	ZZ0004606		Antler · skull	○	○					1	1	1
				○	○					1	1	1
						Sum	44	42	44			
						Percentage	100%	95%	100%			

<i>Muntiacus muntjak</i>												
Museum or Institute	Number	Reposited floor	Specimen type	Right	Left	SR	IPST	TR	BN	Base of antler	Brow time	Lower beam
NSMT	M01144	1F	Antler · skull	○	○	○	○	○	○	1	1	1
				○	○	○	○	○	○	1	1	1
KUGM	RM023		Antler · skull	○	○	○	○	○	○	1	1	1
				○	○	○	○	○	○	1	1	1
						Sum	4	4	4			
						Percentage	100%	100%	100%			

<i>Capreolus pygargus</i>												
Museum or Institute	Number	Reposited floor	Specimen type	Right Left	SR	LFST	TR	BN	Base of antler	Brow line	Lower beam	Frontal line
KUGM	RM131		Antler	○	○	○	○	○	1	1	1	1
KUGM	RM080		Antler	○	○	○	○	○	1	1	1	1
KUGM	RM081		Antler	○	○	○	○	○	1	1	1	1
KUGM	RM082		Antler	○	○	○	○	○	1	1	1	1
KUGM	RM083		Antler	○					1	1	1	1
KUGM	RM084		Antler	○					1	1	1	1
KUGM	RM085		Antler	○					1	1	1	1
KUGM	RM086		Antler	○					1	1	1	1
KUGM	RM087		Antler	○					1	1	1	1
KUGM	RM130		Antler	○					1	0	1	1
NSMT	M23806	1F	Antler	○					1	1	1	1
NSMT	M01169	1F	Antler	○					1	1	1	1
NSMT	M01169	1F	Antler	○					1	1	1	1
NSMT	M01169	1F	Antler	○					1	1	1	1
NSMT	M01170	1F	Antler	○					1	1	1	1
NSMT	M56419	7F	Skull	○					1	1	1	1
Sum									31	30	31	31
Percentage									100%	97%	100%	100%

<i>Capreolus caperolus</i>												
Museum or Institute	Number	Reposited floor/Note	Specimen type	Right Left	SR	LFST	TR	BN	Base of antler	Brow line	Lower beam	Frontal line
KUGM	RM027		Skull, Antler	○	○	○	○	○	1	1	1	1
KUGM	RM028		Complete skeleton	○	○	×	○	○	1	1	1	1
KUGM	RM102	Juvenile ?	Skull, Antler	○	○	×	○	○	1	1	1	0
KUGM	RM101	Juvenile ?	Skull, Antler	○	○	○	○	○	1	1	1	1
KUGM	RM097	Juvenile ?	Skull, Antler	○	○	×	○	○	1	1	1	1
KUGM	RM100	Juvenile ?	Skull, Antler	○	○	×	○	○	1	1	1	1
NSMT	M43323	1F	Antler	○	—	—	—	—	1	1	1	1
NSMT	M911	1F	Complete skeleton	○	○	○	○	○	1	1	1	1
NSMT	M32377	7F	Stuffing	○	—	—	—	—	1	1	1	1
NSMT	M32247	7F	Stuffing	○	—	—	—	—	1	1	1	1
NSMT	M56410	7F	Skull	○	—	—	—	—	1	1	1	1
NSMT	M32183	7F	Skull	○	—	—	—	—	1	1	1	1
Sum									24	23	24	22
Percentage									100%	96%	100%	92%

<i>Hydropotes inermis</i>			
Museum or Institute	Number	Specimen type	
KUGM	RM031	Skull	No antlers
KUGM	RM215	Skull	No antlers

<i>Alces alces</i>																						
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	UVST	TR	DN	Base of antler	Brow line	Frontal line	Lower beam	Upper beam	Terminal-anterior line	Terminal-anterior line bifurcation	Terminal-anterior line palmarium	Terminal-posterior line	Terminal-posterior line palmarium	Terminal-posterior-anterior lines	
KUGM	RM029			Skull, Antler	○	○	○	×	○	○	1	0	0	1	1	1	0	0	1	1	1	
KUGM	RM049			Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	0	1	1	1	
KUGM	RM152			Antler	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	0	1	
KUGM	RM151			Antler	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	1	1	
KUGM	RM150			Antler	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	0	1	
KUGM	RM148			Antler	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	1	1	
KUGM	RM146			Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	0	1	1	1	
KUGM	RM147			Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	0	1	1	1	
NSMT	M43310	1F		Antler	○	○	○	×	○	○	1	0	0	1	1	1	1	0	1	0	1	
NSMT	M56471	1F		Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	0	1	0	1	
NSMT	M01172	1F		Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M01095	1F		Antler+Skull	○	○	○	×	○	○	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M32304	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M32040	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M32374	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	0	1	1	1	
NSMT	M39880	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M39881	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M34879	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M56391	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M56393	7F		Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	0	1	
NSMT	M32305	7F		Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
NSMT	M01052	7F	Siberian elk	Stuffing	○	○	—	—	—	—	1	0	0	1	1	1	0	0	1	0	0	
NSMT	M32305	7F		Antler	○	○	—	—	—	—	1	0	0	1	1	1	1	1	1	1	1	
Sum											40	0	0	40	40	40	30	21	40	30	38	
Percentage											100%	0%	0%	100%	100%	100%	75%	53%	100%	75%	95%	

Rangifer tarandus																																					
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right Left	SP	IPST	TR	PN	Base of antler	Brow line	Brow-antler lines	Brow line and Brow-antler lines	Lower beam	Frontal line	Frontal-posterior lines	Frontal line and Frontal-posterior lines	Upper beam	Rear line	Post-frontal line	Terminal-anterior line	Terminal-anterior line	Terminal-anterior line	Terminal-anterior line	Terminal-posterior line	Terminal-posterior line	Terminal-posterior line	Terminal-posterior line									
KUGM	RM052		Trifurcation of F, M and R	Antler	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	0 0	1 1	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0								
KUGM	RM051			Antler	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	0 0	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	1 1	0 0	0 0									
KUGM	RM050			Antler (Stuffing)	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	0 0	0 0	0 0									
NSMT	M56438	1F	On board	Antler	○ ○	× ×	× ×	○ ○	○ ○	1 1	1 1	0 0	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0									
NSMT	M31343	1F		Antler	○ ○	× ×	× ×	○ ○	○ ○	1 1	1 1	0 0	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	0 0	1 1	0 0	1 1	0 0	1 1	1 1	0 0									
NSMT	M01248	1F		Antler	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0									
NSMT	M01096	1F		Antler	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0									
NSMT	M01173	1F		Antler	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0									
NSMT	M01174	1F		Antler	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	1 1	1 1	0 0									
NSMT	M54712	1F	The tip is missing	Antler	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	0 0	1 1	0 0	1 1	1 1	0 0	1 1	0 0	1 1	0 0									
NSMT	M01023	1F		Antler · Skull	○ ○	× ×	× ×	○ ○	○ ○	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	0 0									
NSMT	M10205	7F		Antler · Skull	○ ○	× ×	× ×	○ ○	○ ○	1 1	1 1	0 0	0 0	1 1	1 1	0 0	0 0	1 1	0 0	0 0	1 1	0 0	1 1	0 0	1 1	0 0	1 1	0 0									
NSMT	M32042	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	1 1	0 0	1 1	0 0	0 0									
NSMT	M32032	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	1 1	0 0	1 1	0 0	0 0									
NSMT	M32044	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	1 1	0 0	0 0									
NSMT	M32318	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	1 1	0 0	0 0									
NSMT	M32307	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	0 0	0 0	0 0									
NSMT	M32317	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	1 1	1 1	0 0									
NSMT	M32043	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1									
NSMT	M42840	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	0 0	1 1	0 0	1 1	1 1	0 0	0 0									
NSMT	M39883	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0									
NSMT	M39882	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	1 1	0 0	0 0									
NSMT	M39884	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	0 0	1 1	1 1	0 0	0 0									
NSMT	M56387	7F		Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	1 1	1 1	1 1	1 1	0 0	1 1	0 0	1 1	1 1	0 0	1 1	0 0	0 0									
NSMT	M43364	7F	Antler is detached	Stuffing	○ ○	— —	— —	— —	— —	1 1	1 1	0 0	0 0	1 1	1 1	1 1	0 0	1 1	1 1	0 0	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1									
KUZ	M00205			Antler	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0									
KUZ	No number			Antler	○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	0	1	1	0	1	0	0	0	0									
						○	—	—	—	—	1	1	0	0	1	1	1	0	1	1	0	1	1	0	1	0	0	0									
						Sum	49	49	33	22	49	49	46	17	49	43	1	49	43	1	49	36	18	46	25	4											
						Percentage	100%	100%	67%	45%	100%	100%	94%	35%	100%	88%	2%	100%	73%	37%	94%	51%	8%														

<i>Odocoileus hemionus</i>																			
Museum or Institute	Number	Reposited floor	Specimen type	Right	Left	SR	IFST	TR	BN	Base of antler	Brow time	Supra-burr process	Upper beam	Rear time	Upper-1st time	Upper-2nd time	Upper-1st anterior/posterior time		
KUGM	RM054		Antler	○	—	—	—	—	—	1	0	0	1	1	1	1	1		
KUGM	RM053		Antler	○	—	—	—	—	—	1	0	1	1	1	1	1	1		
KUGM	RM055		Antler	○	—	—	—	—	—	1	0	0	1	1	1	1	1		
KUGM	RM032		Antler, Skull	○	○	×	○	○	—	1	0	0	1	1	1	1	1		
				○	○	×	○	○	—	1	0	0	1	1	1	1	1		
KUGM	RM076		Antler, Part of skull	○	—	—	—	—	—	1	0	0	1	1	1	0	0		
				○	—	—	—	—	—	1	0	0	1	1	1	0	0		
NSMT	M32364	7F	Stuffed	○	—	—	—	—	—	1	0	0	1	1	1	1	0		
				○	—	—	—	—	—	1	0	0	1	1	1	1	0		
NSMT	M32409	7F	Antler, Skull	○	—	—	—	—	—	1	0	0	1	0	1	1	0		
				○	—	—	—	—	—	1	0	0	1	0	1	1	0		
NSMT	M32355	7F	Stuffed	○	—	—	—	—	—	1	0	0	1	0	1	1	0		
				○	—	—	—	—	—	1	0	0	1	0	1	1	0		
NSMT	M56412	7F	Antler	○	—	—	—	—	—	1	0	0	1	0	1	1	0		
				○	—	—	—	—	—	1	0	0	1	0	1	1	0		
NSMT	M42837	7F	Stuffed	○	—	—	—	—	—	1	0	0	1	1	1	1	1		
				○	—	—	—	—	—	1	0	1	1	1	1	1	1		
NSMT	M56386	7F	Stuffed	○	—	—	—	—	—	1	0	0	1	0	1	1	0		
				○	—	—	—	—	—	1	0	0	1	0	1	1	0		
CBM	ZZ0006163		Stuffed	○	—	—	—	—	—	1	0	0	1	0	1	0	1		
				○	—	—	—	—	—	1	0	0	1	0	1	1	0		
Sum										21	0	2	21	11	21	18	8		
Percentage										100%	0%	10%	100%	52%	100%	86%	38%		

*Assuming that the proximal branch is RO1.

<i>Blastocerus dichotomus</i>																			
Museum or Institute	Number	Specimen type	Right	Left	SR	IFST	TR	BN	Base of antler	Brow time	Lower beam	Frontal time	Frontal-outer-1st time	Upper beam	Rear time				
KUGM	RM134	Antler, Part of Skull	○	○	○	×	○	○	1	0	1	1	1	1	1				
			○	○	○	×	○	○	1	0	1	1	1	1	1				
Sum										2	0	2	2	2	2				
Percentage										100%	0%	100%	100%	100%	100%				

<i>Mazama americana</i>																			
Museum or Institute	Number	Specimen type	R	L	SR	IFST	TR	BN	Base of antler	Brow time	Lower beam	Upper beam	Rear time						
KUGM	RM035	Complete skeleton	○	○	○	×	○	○	1	0	0	1	1						
			○	○	○	×	○	○	1	0	0	1	1						
Sum										2	0	0	2						
Percentage										100%	0%	0%	100%						

Odocoileus virginianus

Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	FBST/MI	IR	BN	Base of antler	Supra-burr process	Brow time	Brow-anterior times	Frontal time	Frontal-outer-1st time	Frontal-outer-2nd time	Upper-beam	Rear time	Upper-1st time	Upper-2nd time	Upper-3rd time
NSMT	M00282	1F		Complete skeleton	○	○	○	×	○	○	1	0	0	0	0	0	0	1	1	1	1	0
					○	○	×	○	○		1	0	0	0	0	0	0	1	1	1	1	0
NSMT	M32322	7F	Some tines are impossible to be determined due to strings	Stuffing	○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	?	?	?
					○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	?	?	?
NSMT	M39872	7F		Stuffing	○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	0
					○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	0
NSMT	M00189	1F		Antler	○	○	○	○	○	○	1	1	0	0	0	0	0	1	1	1	1	?
					○	○	○	○	○	○	1	1	0	0	0	0	0	1	1	1	1	?
NSMT	M39866	7F		Stuffing	○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
NSMT	M32362	7F		Stuffing	○	○	—	—	—	—	1	0	0	0	1	0	0	1	1	1	1	0
					○	○	—	—	—	—	1	0	1	1	1	1	1	1	1	1	1	0
NSMT	M39836	7F	Injured	Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	?	?
NSMT	M39839	7F		Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	1	1
NSMT	M39838	7F		Antler	○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	1	0	0	0	0	0	1	1	1	1	1
NSMT	M39837	7F		Antler	○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
NSMT	M39844	7F		Antler	○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
					○	○	—	—	—	—	1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM033			Antler+Skull	○	○	○	×	○	○	1	0	0	0	0	0	0	1	1	1	1	1
					○	○	○	×	○	○	1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM208			Antler+Part of skull	○	○					1	1	0	0	0	0	0	1	1	1	1	1
					○	○					1	1	0	0	0	0	0	1	1	1	1	1
KUGM	RM074			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM077			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					Broken											
KUGM	RM078			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	1	1
					○	○					1	0	0	0	0	0	0	1	1	0	1	0
KUGM	RM117			Antler	○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM118			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM116			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
					○	○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM112			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM115			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM058			Antler+Part of skull	○	○					1	0	1	0	0	0	0	1	1	1	0	0
					○	○					1	0	1	0	0	0	0	1	1	1	0	0
KUGM	RM054			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
					○	○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM071			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	1
					○	○					1	0	0	0	0	0	0	1	1	1	1	1

<i>Odocoileus vigirianus</i> (continued)																						
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SK	FBSTAMI	TR	BN	Base of antler	Supra-burr process	Brow line	Brow-anterior lines	Frontal line	Frontal-outer-1st line	Frontal-outer-2nd line	Upper beam	Rear line	Upper-1st line	Upper-2nd line	Upper-3rd line
KUGM	RM088			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	0	0
											1	0	0	0	0	0	0	1	1	0	1	1
KUGM	RM072			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
											1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM090			Antler		○					1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM068			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
						○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM089			Antler		○					1	0	0	0	0	0	0	1	1	0	1	1
KUGM	RM075			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	1	0
						○					1	0	0	0	0	0	0	1	1	0	1	0
KUGM	RM073			Antler		○					1	1	0	0	0	0	0	1	1	1	1	0
KUGM	RM057			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	1	1
						○					1	0	0	0	0	0	0	1	1	0	1	1
KUGM	RM064			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	0	?	?	?
						○					1	0	0	0	0	0	0	1	0	?	?	?
KUGM	RM059			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	1	1
						○					1	0	0	0	0	0	0	1	1	0	1	1
KUGM	RM066			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM067			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	1
						○					1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM062			Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
						○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM141			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM142			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
						○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM034			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	1	0
						○					1	0	0	0	0	0	0	1	1	1	1	0
KUGM	RM092			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	1	1
						○					1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM136			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	1	1
						○					1	0	0	0	0	0	0	1	1	1	1	1
KUGM	RM079			Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM069	Juvenile?		Antler+Skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM113	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	0	0
						○					1	0	0	0	0	0	0	1	1	0	0	0
KUGM	RM061	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM060	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	1	1	0	0	0	0	1	1	1	0	0
KUGM	RM070	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM065	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	0	0
KUGM	RM144	Juvenile?		Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0
						○					1	0	0	0	0	0	0	1	1	1	?	?

<i>Odocoileus vigirianus</i> (continued)																								
Museum or Institute	Number	Reposited floor	Note	Specimen type	Right	Left	SR	IPST	TR	BN	Base of antler	Supra-burr process	Brow line	Brow-anterior lines	Frontal line	Frontal-outer-1st line	Frontal-outer-2nd line	Upper beam	Rear line	Upper-1st line	Upper-2nd line	Upper-3rd line		
KUGM	RM119		Juvenile?	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	0	0		
KUGM	RM063		Juvenile?	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0		
KUGM	RM111		Juvenile?	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0		
KUGM	RM123		Juvenile?	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	1	0		
KUGM	RM114		Juvenile	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	0	0	0		
KUGM	RM120		Juvenile	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	0	0	0	0		
KUGM	RM121		Juvenile	Antler+Part of skull	○	○					1	0	0	0	0	0	0	0	0	0	0	0		
KUGM	RM122		Juvenile	Antler+Part of skull	○	○					1	0	0	0	0	0	0	1	1	1	0	0		
KUGM	RM110		Juvenile	Antler+Part of skull	○	○					1	1	0	0	0	0	0	1	0	0	0	0		
Sum (excluding "Juvenile" and "Juvenile?")											82	12	3	1	2	1	1	82	80	67	68	33		
Percentage (excluding "Juvenile" and "Juvenile?")											100%	15%	4%	1%	2%	1%	1%	100%	98%	86%	88%	44%		