

## Appendix 1. Tooth wear stages of cattle, pig and sheep/goat

Table 1. Tooth wear stages and calculated Grant MWS for cattle dental remains.

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
dentes inferior	m2			f			14-19	
dentes inferior	dp4	a					3	
dentes inferior	m3					g	37-49	
dentes inferior	dp4	a					3	
dentes inferior	dp4	j/k					4~6	
dentes inferior	m1?			g			20-32	
dentes inferior	p4		f				42-47	
dentes inferior	m3					b	30-34	
dentes inferior	]dp4[	g					4~6	
dentes inferior	]m1[			a			4~6	
dentes inferior	m3					a	30-31	
dentes inferior	dp4	j					4~6	
dentes inferior	m3					j	44-47	
dentes inferior	dp4	h					4~6	
dentes inferior	m2?				f		25-34	
dentes inferior	dp4	j					4~6	
dentes inferior	m3					k	46-50	
dentes inferior	m1			k			34-44	
dentes inferior	m2				h		39-41	
dentes inferior	m1?			c?			10~11	
dentes inferior	m3					g	37-49	
dentes inferior	m3					k	46-50	
dentes inferior	dp4	j/k					4~6	

Table 1. continued.

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
dentes inferior	dp4	a					3	
dentes inferior	]m2[				k		42-47	
dentes inferior	m1/m2			k			34-44	
dentes inferior	m2				f		25-34	
mandibula	m3,m2				k	j	44-46	
mandibula	(i1,i2,i3,c1,p2)p3,p4,m1		c	k			34-44	
mandibula	p2,p3,p4,m1		c				38-42	
mandibula	m2				E/H		7~16	
mandibula	m2,m3				h	g	40-41	
mandibula	m2				m		48-53	
mandibula	dp4, m1, m2, m3	j		g	f	U	28	
mandibula	p2,p3,p4,m1,m2,(m3)		g	k	k		42-44	
mandibula	p3,p4		c				?	
mandibula	dp4,m1	a		E?			1~3	
mandibula	(i1 t/m dp2) dp3,dp4	j					4~6	
mandibula	m3					b	30-34	
mandibula	m3					j	44-47	
mandibula	p4, m1, m2		f/g	k	k		42-44	
mandibula	p4,m1,m2		f	k	j		38-41	
mandibula	dp2,dp3,dp4,m1,m2	j		h	c		?	
mandibula	m1, m2			k	k		42-44	
mandibula	m1			m			45-51	
mandibula	dp2,(dp3),dp4,m1	a		E			1~3	
mandibula	dp4	j?					4~6	
		j		c			11	Cavallo 2006, 76

Table 1. continued.

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
		j	c/d				11~13	Cavallo 2006, 76
				g	c	?	23	Cavallo 2006, 76
		k		f	e?		26	Cavallo 2006, 76
						b	30-31	Cavallo 2006, 76
			f	k	j	h?	41	Cavallo 2006, 76
			f/g	k	k	h	42	Cavallo 2006, 76
				k	k	(m3)	42	Cavallo 2006, 76
					k	k	46-47	Cavallo 2006, 76
						k	47-49	Cavallo 2006, 76
		a					1~3	Cavallo 2008, 63
				a			1~7	Cavallo 2008, 63
		n					20-29	Cavallo 2008, 63
		f/g		h			27-28	Cavallo 2008, 63
					b		17-21	Cavallo 2008, 63
				h			27-34	Cavallo 2008, 63
				g			27-39	Cavallo 2008, 63
				k			34-44	Cavallo 2008, 63
mandibula	m2,m3				g	b	31~34	van der Jagt 2011, appendix X, tab 2
mandibula	m3					H?	25-29	van der Jagt 2011, appendix X, tab 2
mandibula	dp4	a					3?	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4	j					8~29	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4,m1	h		H			4	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4,m1	h/j		b			7	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4,m1	j		c	C		9	van der Jagt 2011, appendix X, tab 2
mandibula	p3,p4,m1,m2		f/g	k	j		38-41	van der Jagt 2011, appendix X, tab 2

Table 1. continued.

<b>element</b>	<b>dental formula</b>	<b>dP4</b>	<b>P4</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>Grant MWS</b>	<b>Source publication</b>
mandibula	m2,m3				g	b	31-34	van der Jagt 2011, appendix X, tab 2
mandibula	p4,m1,m2,m3		U/C	k	g	b	35	van der Jagt 2011, appendix X, tab 2
mandibula	dp4,m1,m2	g		f	H		15?	van der Jagt 2011, appendix X, tab 2
mandibula	m2,m3				f	E	26	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4,m1,m2	j		c/d	N/C/V		8~11	van der Jagt 2011, appendix X, tab 2
mandibula	p4,m1,m2		b	h	f		28-30	van der Jagt 2011, appendix X, tab 2
mandibula	p4,m1,m2		f	k	j		38-41	van der Jagt 2011, appendix X, tab 2
mandibula	m1/2			H			4~5	van der Jagt 2011, appendix X, tab 2
mandibula	p2,p3,p4,m1,m2		g	k	k		42-44	van der Jagt 2011, appendix X, tab 2
mandibula	m1,m2,m3			k	k	j	46	van der Jagt 2011, appendix X, tab 2
mandibula	dp2,dp3,dp4,m1	h/j		f			18-19	van der Jagt 2011, appendix X, tab 2
mandibula	m2,m3				f	C	?	van der Jagt 2011, appendix X, tab 2
dentis inferior	m2				a		16	van der Jagt 2011, appendix X, tab 2

Table 2. Tooth wear stages and calculated Grant MWS for pig dental remains.

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
dentes inferior	m2?				d		24-31	
dentes inferior	m3					a	25-35	
dentes inferior	m2				a		15-20	
dentes inferior	m3					a	25-35	
dentes inferior	m3					c	34-38	
dentes inferior	m1?			j?			25-36	
dentes inferior	m3					b	27-37	
dentes inferior	m3					b	27-37	
mandibula	p3,p4,m1,m2,m3		c/d	h	f	c	32	
mandibula	(i1,i2,i3,c1,p1,p2,p3), p4,m1,m2,m3		g	n	l/m	h	47-48	
mandibula	p4,m1,m2,m3		?	g/h	f	c	31-32	
mandibula	(i1,i2,i3,c1,p1,p2)p3,p4,m1,m2,m3		g	m/n	m	h/j	47-49	
mandibula	(p3), p4,m1,m2,m3		e	j	f	b/c	32-33	
mandibula	(p2),p3,p4,m1,m2			g	e/f		26-30	
mandibula	m3					c	34-38	
mandibula	m2,m3				?	c	34-38	
mandibula	(p2,p3),p4,m1,m2,m3		d	e/g	e/g	d	29-33	
mandibula	sin: i1,i2,(i3,c1); dex: i1(i2,i3,c1,p1,p2)p3,p4		b				2~8	
mandibula	m2,m3				g?	b/c	34-38	
mandibula	m1			j			25-36	
mandibula	]m2[				f		30-36	
mandibula	m2				e/f		29-36	
mandibula	p3,p4		b				?	
mandibula	]m3					c	34-38	
mandibula	(p1,p2,p3) p4,m1,m2, m3			k	h/j	e	38-39	

Table 2. continued

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
mandibula	(p1,p2,p3,p4) m1,m2,m3			m	k	e	42	
mandibula	(m1) m2,m3				f	d/e	33?	
mandibula	(p2)p3,p4,m1,m2,m3		d/e	f	d/e	b	27	
mandibula	(m1,m2) m3					a	25-35	
mandibula	dp4	U					1	
mandibula	dp4	U					1	
mandibula	dp4	a					1	
mandibula	p4,m1		a	d/e			?	
mandibula	(p3) p4,m1,m2,m3		f?	j/k	j	c	37-38	
mandibula	](m1,m2) m3					c	34-38	
mandibula	m2,m3				e	b	29-34	
mandibula	(m1) m2,m3				e	b	29-34	
mandibula	(p2,p3,p4)m1,m2,m3			k	g	e/f	37-38	
mandibula	m3					a	25-35	
mandibula	m1,m2[			g	d		27-28	
mandibula	m3					e	42-43	
mandibula	m1, m2			g	b?		21-24	
mandibula	m3					a	25-35	
mandibula	m2				a		15-20	
mandibula	p4,m1,m2		a	f			?	
mandibula	m3					c	34-38	
mandibula	m3					a	25-35	
mandibula	m3					c	34-38	
mandibula	m2,m3				d	a	27-30	
mandibula	m1, m2			g	c		25-27	

Table 2. continued

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
mandibula	c1 (p2,p3) p4,m1,m2,m3		b	d	c	a	23	
mandibula	m3					a	25-35	
mandibula	]p4,m1,m2		a	c/d	a	C	15-16	
mandibula	m3,m2				f	b	30-33	
mandibula	p4,m1,m2,m3		d	k/l	g	a/b	34-35	
mandibula	m3					e/f	43-46	
mandibula	p3,p4		e				33-42	
mandibula	p4,m1,m2		a	g	b		21-24	
		f	C	b	C	C	6~12	Cavallo 2006, 65
						a	23-35	Cavallo 2006, 65
			d	h			26-33	Cavallo 2006, 65
			d		e		26-33	Cavallo 2006, 65
			d	k	e	a	32	Cavallo 2006, 65
						c	34-38	Cavallo 2006, 65
				l			28-38	Cavallo 2006, 65
				d	a	n	38	Cavallo 2006, 65
			e	l	k	d	40	Cavallo 2006, 65
				m	h	g	42	Cavallo 2006, 65
mandibula	p3,p4,m1,m2,m3		b	g	e	b	29	van der Jagt 2011, appendix X, tab 10
mandibula	m2,m3				d	a	27-30	van der Jagt 2011, appendix X, tab 10
mandibula	p3,p4,m1,m2,m3		e	l	g	d	36	van der Jagt 2011, appendix X, tab 10
mandibula	m1,m2,m3			h	e	c	31	van der Jagt 2011, appendix X, tab 10

Table 3. Tooth wear stages and calculated Grant MWS for sheep/goat dental remains.

element	dental formula	dP4	P4	M1	M2	M3	Grant MWS	Source publication
dentes inferior	m3					e/f	33-38	
dentes inferior	m1/2			b			8~10	
dentes inferior	m1			g			17-36	
dentes inferior	dp4	f					3~7	
mandibula	(c1,p2), p3,p4,m1,m2,m3		e?	?	g	c	32-34	
mandibula	p3,p3,m1,m,m3		H	g	e	E	25	
mandibula	p3,p4,m1,m2,m3		e	g	e	H/U	27	
mandibula	(p2)p3,p4,m1,m2,m3		g	g	g	d	33	
mandibula	dp2,dp3,dp4,m1m2	g		f	E	N	8~18	
mandibula	m1,m2,m3			j	g/h	g	38-39	
mandibula	m3					g	36-46	
mandibula	(p2,p3,p4)m1,m2,m3			k	k	g	42	
mandibula	(p2),p3,(p4), m1,m2,m3			m	k	g	44	
mandibula	(i1,i2,i3,c1,p2),p3,p4,m1,m2,m3		g/h	g	g	g	36	
mandibula	dp3,dp4,m1	f		a			6?	van der Jagt 2011, appendix X, tab 6
mandibula	dp2,dp3,dp4,m1,m2	g		e	E		13	van der Jagt 2011, appendix X, tab 6
mandibula	dp2?,dp3,dp4	H		C			1	van der Jagt 2011, appendix X, tab 6
mandibula	dp2,dp3,dp4	H		C			1	van der Jagt 2011, appendix X, tab 6
mandibula	p2,p3,p4,m1		f	g			?	van der Jagt 2011, appendix X, tab 6
mandibula	p3,p4,m1,m2		j	m	j		43-44	van der Jagt 2011, appendix X, tab 6
mandibula	p2,p3,p4,m1,m2,m3		h	g/h	g	g	36-37	van der Jagt 2011, appendix X, tab 6
dentes inferior	m1			g			14-36	van der Jagt 2011, appendix X, tab 6
dentes inferior	m1			f			13-24	van der Jagt 2011, appendix X, tab 6
	These two fragments are part of one element.							



## Appendix 2. Epiphyseal fusion of cattle, pig and sheep/goat

Table 4. Epiphyseal fusion for post-cranial cattle remains.

Element	Fusing age	N fused	N unfused	total	% fused	% unfused	% slaughtered
pelvis ac.	7-10 m	19	11				
scapula	7-10 m	21	7				
<b>total</b>		<b>40</b>	<b>18</b>	<b>58</b>	<b>68,9</b>	<b>31,1</b>	<b>31,1</b>
humerus dist.	12-18 m	18	6				
radius prox.	12-18 m	32	3				
phalanx 1 prox.	18 m	29	9				
phalanx 2 prox.	18 m	33	1				
<b>total</b>		<b>112</b>	<b>19</b>	<b>131</b>	<b>85,5</b>	<b>14,5</b>	<b>0</b>
metacarpus dist.	24-30 m	12	5				
tibia dist.	24-30 m	25	16				
metatarsus dist.	27-36 m	13	6				
<b>total</b>		<b>50</b>	<b>27</b>	<b>77</b>	<b>64,9</b>	<b>35,1</b>	<b>20,5</b>
calcaneum	36-42 m	9	6				
femur prox.	42 m	9	9				
<b>total</b>		<b>18</b>	<b>15</b>	<b>33</b>	<b>54,5</b>	<b>45,5</b>	<b>10,4</b>
humerus prox.	42-48 m	7	7				
radius dist.	42-48 m	6	8				
ulna prox.	42-48 m	0	4				
ulna dist.	42-48 m	0	2				
femur dist.	42-48 m	8	11				
tibia prox.	42-48 m	1	10				
<b>total</b>		<b>22</b>	<b>42</b>	<b>64</b>	<b>34,4</b>	<b>65,6</b>	<b>20,2</b>
<b>total</b>	<b>&gt; 48 m</b>						<b>17,8</b>

Table 5. Epiphyseal fusion for post-cranial pig remains.

<b>Element</b>	<b>Fusing age</b>	<b>N fused</b>	<b>N unfused</b>	<b>total</b>	<b>% fused</b>	<b>% unfused</b>	<b>% slaughtered</b>
scapula	12 m	11	2				
humerus dist.	12 m	17	5				
radius prox.	12 m	17	2				
phalanx 2 prox.	12 m	4	2				
pelvis ac.	12 m	14	1				
<b>total</b>		<b>63</b>	<b>12</b>	<b>75</b>	<b>84</b>	<b>16</b>	<b>16</b>
metacarpus dist.	24 m	0	3				
phalanx 1 prox.	24 m	3	2				
tibia dist.	24 m	11	23				
<b>total</b>		<b>14</b>	<b>28</b>	<b>42</b>	<b>33,3</b>	<b>66,7</b>	<b>50,7</b>
calcaneum	24-30 m	7	16				
metatarsus dist.	27 m	2	5				
fibula dist.	30 m	3	2				
<b>total</b>		<b>12</b>	<b>23</b>	<b>35</b>	<b>34,2</b>	<b>65,8</b>	<b>0</b>
ulna prox.	36-42 m	2	15				
ulna dist.	36-42 m	1	5				
<b>total</b>		<b>3</b>	<b>20</b>	<b>23</b>	<b>13,1</b>	<b>86,9</b>	<b>21,3</b>
humerus prox.	42 m	0	3				
radius dist.	42 m	0	13				
femur prox.	42 m	0	3				
femur dist.	42 m	2	6				
tibia prox.	42 m	3	11				
fibula prox.	42 m	0	3				
<b>total</b>		<b>5</b>	<b>39</b>	<b>44</b>	<b>11,3</b>	<b>88,7</b>	<b>1,7</b>
<b>total</b>	<b>&gt;48 m</b>						<b>10,3</b>

Table 6. Epiphyseal fusion for post-cranial sheep/goat remains.

<b>Element</b>	<b>Fusing age</b>	<b>N fused</b>	<b>N unfused</b>	<b>total</b>	<b>% fused</b>	<b>% unfused</b>	<b>% slaughtered</b>
scapula	6-8 m	0	0				
pelvis ac.	6-10 m	6	1				
humerus dist.	10 m	10	2				
radius prox.	10 m	6	1				
phalanx 1 prox.	13-16 m	4	0				
phalanx 2 prox.	13-16 m	3	1				
<b>total</b>		<b>29</b>	<b>5</b>	<b>34</b>	<b>85,3</b>	<b>14,7</b>	<b>14,7</b>
tibia dist.	18-24 m	5	1				
metacarpus dist.	18-24 m	1	0				
metatarsus dist.	20-28 m	6	2				
<b>total</b>		<b>12</b>	<b>3</b>	<b>15</b>	<b>80</b>	<b>20</b>	<b>5,3</b>
ulna prox.	30 m	1	3				
ulna dist.	30 m	0	0				
femur prox.	30-36 m	1	3				
calcaneum	30-36 m	2	3				
radius dist.	36 m	0	1				
humerus prox.	36-42 m	0	2				
femur dist.	36-42 m	2	3				
tibia prox.	36-42 m	1	0				
<b>total</b>		<b>7</b>	<b>15</b>	<b>22</b>	<b>31,8</b>	<b>68,2</b>	<b>48,2</b>
<b>total</b>	<b>&gt; 42 m</b>						<b>31,8</b>

### Appendix 3. Measurements taken for the purpose of sexing cattle remains

Table 7. Overview of all measurements taken for sex analysis of the selected cattle elements.

<b>Element</b>	<b>Measurement</b>	<b>Abbreviation</b>	<b>Source publication</b>
<b>metacarpus</b>	Greatest length	GL	von den Driesch 1976
	Smallest breadth of diaphysis	SD	von den Driesch 1977
	Greatest breadth of proximal end	Bp	von den Driesch 1978
	Greatest breadth of distal end	Bd	von den Driesch 1979
	Breath of medial condyle	mcon	Thomas 1988
	Breath of lateral condyle	lcon	Thomas 1988
<b>metatarsus</b>	Greatest length	GL	von den Driesch 1976
	Smallest breadth of diaphysis	SD	von den Driesch 1977
	Greatest breadth of proximal end	Bp	von den Driesch 1978
	Greatest breadth of distal end	Bd	von den Driesch 1979
	Breath of medial condyle	mcon	Thomas 1988
	Breath of lateral condyle	lcon	Thomas 1988
<b>horncores</b>	Horncore basal circumference	44HPR	von den Driesch 1976
	Greatest diameter of the horncore base	45HPR	von den Driesch 1977
	Least diameter of the horncore base	46HPR	von den Driesch 1978
	Length of outer curvature of the horncore	47HPR	von den Driesch 1979
<b>acetabulae</b>	Height of the medial acetabular wall	H1	Greenfield 2006

Table 8. 'H1' measurements taken from Oegstgeest cattle acetabulae

<b>project</b>	<b>find nr.</b>	<b>value 'H1' in mm</b>	<b>remarks</b>
ONRZ09	727	5,5	
ONRZ09	934	10,7	
ONRZ09	557	7,5	
ONRZ09	92	11,7	pathology
ONRZ09	790	11,5	
ONRZ09	831	8,4	
ONRZ09	846	15,7	
ONRZ09	511	11	
ONRZ09	802	7,9	
ONRZ09	40	12,6	pathology
OSLP10	602	10,3	
OSLP10	41	12,3	
OSLP10	1004	7,9	
OSLP10	2004	15	pathology
OSLP10	1020	7,3	
OSLP10	2005	7,6	

Table 9. Measurements (in mm) taken from complete metacarpals.

<b>project</b>	<b>find nr.</b>	<b>element</b>	<b>GL</b>	<b>SD</b>	<b>BP</b>	<b>BD</b>	<b>MCON</b>	<b>LCON</b>
ONRZ09	829	metacarpus	171	24,3	46,9	49,2	23,3	22,5
ONRZ09	893	metacarpus	191	30	53,1	54,7	25,6	25,8
ONRZ09	1004	metacarpus	189,5	28,9	49,2	51,4	24,9	23,4
ONRZ09	705	metacarpus	177,5	25,2	48,9	52	25,3	24,3
ONRZ09	1062	metacarpus	194,5	30,7	59,8	59,5	29,6	27,1
ONRZ09	1012	metacarpus	198	33,3	63	64,2	31,2	29,7
ONRZ09	988	metacarpus	181	25,9	47,9	49,8	24,1	22,7
OSLP10	1020	metacarpus	190,5	27,1	53,2	53,2	25,7	24,4
OSLP10	777	metacarpus	180	29,1	50,9	55,2	26,9	25,6
OSLP10	2004	metacarpus	182,5	24,6	48	48,2	22,5	21,9
OSLP10	501	metacarpus	183	27,6	47,3	50,1	23,7	23,4

Table 10. Measurements (in mm) taken from complete metatarsals.

<b>project</b>	<b>find nr.</b>	<b>element</b>	<b>GL</b>	<b>SD</b>	<b>BP</b>	<b>BD</b>	<b>MCON</b>	<b>LCON</b>
ONRZ09	944	metatarsus	222	24,2	44,6	51,2	24,6	24,2
ONRZ09	1012	metatarsus	228	27,3	52,2	60,4	29,6	26,6
ONRZ09	774	metatarsus	208,5	21,3	*0	45,1	21,7	21,1
OSLP10	151	metatarsus	206,5	22,6	41,8	47,2	22,1	20,8
OSLP10	1020 (1)	metatarsus	208	22,4	40,1	46,3	22,1	21
OSLP10	1020 (2)	metatarsus	210	22,8	44,9	48,5	23,1	22,1
OSLP10	106	metatarsus	217,5	22,5	42	49,5	23	22

\* One metatarsus from find number 774 displays a pathology on the proximal surface. Therefore no Bp measurement could be taken

Table 11. Bd measurements (in mm) for metacarpals.

<b>project</b>	<b>element</b>	<b>find nr.</b>	<b>Bd</b>
ONRZ09	metacarpus	893	54,7
ONRZ09	metacarpus	2072	59,3
ONRZ09	metacarpus	1004	51,4
ONRZ09	metacarpus	705	52
ONRZ09	metacarpus	1062	59,5
ONRZ09	metacarpus	774	51,6
ONRZ09	metacarpus	841	54,1
ONRZ09	metacarpus	558	51,4
ONRZ09	metacarpus	988	49,8
ONRZ09	metacarpus	1012	64,2
ONRZ09	metacarpus	1012	52,5
OSLP10	metacarpus	1020	53,2
OSLP10	metacarpus	115	52,5
OSLP10	metacarpus	777	55,2
OSLP10	metacarpus	2004	48,2
OSLP10	metacarpus	106	51,7
OSLP10	metacarpus	501	50,1
OSLP10	metacarpus	337	52,4
OSLP10	metacarpus	2005	*75,9
* One distal metacarpus displays a pathology; this specimen has extremely wide distal condyles (see fig. 9)			

Table 12. Bd measurements (in mm) for metatarsals.

<b>project</b>	<b>element</b>	<b>find nr.</b>	<b>Bd</b>
ONRZ09	metatarsus	944	51,2
ONRZ09	metatarsus	823	55
ONRZ09	metatarsus	166	46,2
ONRZ09	metatarsus	2	50,7
ONRZ09	metatarsus	843	49
ONRZ09	metatarsus	347	57,6
ONRZ09	metatarsus	492	46,7
ONRZ09	metatarsus	492	47,6
ONRZ09	metatarsus	774	45,1
ONRZ09	metatarsus	1012	60,4
ONRZ09	metatarsus	1012	52,2
ONRZ09	metatarsus	846	48,2
ONRZ09	metatarsus	160	51,4
ONRZ09	metatarsus	160	50,5
ONRZ09	metatarsus	2066	57,4
ONRZ09	metatarsus	575	50,7
ONRZ09	metatarsus	201	51,3
ONRZ09	metatarsus	114	48
ONRZ09	metatarsus	41	50,6
ONRZ09	metatarsus	491	46,8
ONRZ09	metatarsus	811	60,6
OSLP10	metatarsus	490	56,9
OSLP10	metatarsus	151	47,2
OSLP10	metatarsus	2005	59,9
OSLP10	metatarsus	1020	46,3
OSLP10	metatarsus	1020	48,5
OSLP10	metatarsus	106	49,5
OSLP10	metatarsus	496	50,6
OSLP10	metatarsus	41	50,3



Table 13. Breath of medial and lateral condyle ('mcon' and 'lcon' in mm) for metacarpals and metatarsals.

project	element	find nr.	mcon	lcon	project	find nr.	element	mcon	lcon	project	find nr.	element	mcon	lcon
ONRZ09	metacarpus	893	25,6	25,8	ONRZ09	944	metatarsus	24,6	24,2	ONRZ09	491	metatarsus	22,3	20,9
ONRZ09	metacarpus	829	23,3	22,5	ONRZ09	823	metatarsus	26,9	25,2	ONRZ09	811	metatarsus	29,4	27,5
ONRZ09	metacarpus	1004	24,9	23,4	ONRZ09	2	metatarsus	24,9	22,8	ONRZ09	160	metatarsus	24,8	23,2
ONRZ09	metacarpus	705	25,3	24,3	ONRZ09	843	metatarsus	23,3	23	ONRZ09	160	metatarsus	24,1	23,2
ONRZ09	metacarpus	1062	29,6	27,1	ONRZ09	347	metatarsus	28,9	26,2	ONRZ09	846	metatarsus	22,8	21,9
ONRZ09	metacarpus	1012	31,2	29,7	ONRZ09	492	metatarsus	23,3	21,5	ONRZ09	1012	metatarsus	29,6	26,6
ONRZ09	metacarpus	988	24,1	22,7	ONRZ09	492	metatarsus	22,4	22,5	ONRZ09	1012	metatarsus	24,5	24,1
OSLP10	metacarpus	1020	25,7	24,4	ONRZ09	774	metatarsus	21,7	21,1	OSLP10	151	metatarsus	22,1	20,8
OSLP10	metacarpus	115	25,1	24,6	ONRZ09	2066	metatarsus	28,4	26,1	OSLP10	490	metatarsus	28,6	25,4
OSLP10	metacarpus	777	26,9	25,6	ONRZ09	575	metatarsus	24,9	22,3	OSLP10	2005	metatarsus	27,9	28,2
OSLP10	metacarpus	2004	22,5	21,9	ONRZ09	201	metatarsus	24,5	23	OSLP10	1020	metatarsus	22,1	21
OSLP10	metacarpus	106	24,5	23,6	ONRZ09	114	metatarsus	22,5	22,2	OSLP10	1020	metatarsus	23,1	22,1
OSLP10	metacarpus	501	23,7	23,4	ONRZ09	41	metatarsus	25,8	22,7	OSLP10	106	metatarsus	23	22
										OSLP10	496	metatarsus	24	23,5
										OSLP10	41	metatarsus	25,3	22

Table 14. Measurements taken from horncores that were not classified according to their length ('?' Means no measurement could be taken).

<b>project</b>	<b>find nr.</b>	<b>44hpr</b>	<b>45hpr</b>	<b>46hpr</b>	<b>project</b>	<b>find nr.</b>	<b>44hpr</b>	<b>45hpr</b>	<b>46hpr</b>
ONRZ09	318	179	60,2	50,7	OSLP10	64	112	37,6	32,7
ONRZ09	1014	172	60,2	45	OSLP10	64	114	32,3	30,4
ONRZ09	134	141	49,8	33,9	OSLP10	64	191	63,3	52,4
ONRZ09	748	142	50,9	37,9	OSLP10	64	112	35,6	31,2
ONRZ09	436	133	47,3	36,7	OSLP10	64	144	46,2	42,5
ONRZ09	140	189	64	54,5	OSLP10	64	170	?	?
ONRZ09	745	144	52,6	38,4	OSLP10	223	190	65,7	50
ONRZ09	841	132	44,6	35,8	OSLP10	561	112	40,5	30,8
ONRZ09	1012	171	59,4	43,8	OSLP10	561	111	37,7	27,3
ONRZ09	802	123	42,8	35,1	OSLP10	1020	120	38,8	35
ONRZ09	303	197	67,7	53,7	OSLP10	1020	151	53,7	40,3
ONRZ09	1003	210	69	55,4	OSLP10	501	150	52,4	40,5
ONRZ09	788	132	48,5	35,4	OSLP10	114	196	66,8	48,9
					OSLP10	476	150	52,5	40,6
					OSLP10	50	120	38,5	34,4

Table 15. Measurements taken from horncores that were classified as 'small horned'.

<b>project</b>	<b>find nr.</b>	<b>44hpr</b>	<b>45hpr</b>	<b>46hpr</b>	<b>47hpr</b>
ONRZ09	246	111	42,5	28,7	112
ONRZ09	788	132	47,4	34	141
ONRZ09	1029	122	42	32,2	112
ONRZ09	906	152	45,7	42,6	130
ONRZ09	366	110	36,2	28,4	120
ONRZ09	482	119	39,3	31,5	100
ONRZ09	493	121	39,8	32,2	120
ONRZ09	211	112	38,7	29,9	130
ONRZ09	564	111	36,5	25,7	112
OSLP10	164	120	40,9	32,5	123
OSLP10	103	120	41,5	32	123

Table 16. Measurements taken from horncores that were classified as 'short horned'.

<b>project</b>	<b>find nr.</b>	<b>44hpr</b>	<b>45hpr</b>	<b>46hpr</b>	<b>47hpr</b>
ONRZ09	694	162	58,2	44,5	160
ONRZ09	143	122		33,7	160
ONRZ09	440	121	40,4	33,5	152
ONRZ09	694	163	58,3	44,8	150
ONRZ09	578	140	47,5	36	163
ONRZ09	578	139	45,1	35,4	162

#### Appendix 4. Skeletal element abundance for cattle, pig and sheep/goat

Table 17. Numbers of skeletal elements for cattle, pig and sheep/goat.

Element	Cattle	Sheep/goat	Pig
Horncore	99	4	
Cranium	191	32	63
Maxilla	64	20	39
Mandibula	168	73	134
Dentes superior	76	26	20
Dentes inferior	76	23	54
Dentes	61	26	24
Hyoid	1	0	0
Atlas	16	3	3
Axis	15	5	3
Vertebrae cervicales	20	8	5
Vertebrae thoracales	31	8	5
Vertebrae lumbales	22	7	16
Vertebrae caudales	3	0	1
Vertebrae	4	0	6
Sacrum	6	3	2
Costae	12	0	0
Sternum	2	1	0

Table 17. continued

<b>Element</b>	<b>Cattle</b>	<b>Sheep/goat</b>	<b>Pig</b>
Scapula	97	25	67
Humerus	104	25	54
Radius	80	25	53
Ulna	19	5	65
Radius-ulna	22	0	0
Metacarpus	59	19	19
Carpalia	30	5	10
Pelvis	118	17	45
Femur	81	18	29
Patella	13	3	0
Tibia	110	29	86
Fibula	3	1	15
Astragalus	49	2	33
Calcaneum	51	12	39
Metatarsus	104	23	16
Tarsalia	25	2	8
Sesamoide	7	0	0
Phalange 1	56	9	11
Phalange 2	45	5	10
Phalange 3	21	4	3
Phalange	1	1	9