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# An offprint from Deer and People

#### edited by

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Front cover: Red deer, photo by R. Carden. Inset, top to bottom: Queen Elizabeth I at a stag hunt, British Library, London/The Bridgeman Art Library; red deer teeth, photo by E. Stephan; Bronze Age scene from Boregtiin Gol, Mongolia, photo by R. Kortum; worked antler and bone, photo by E. Gál.

Back cover: Drawing by J. Cotton

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### Deer and Humans in South Wales during the Roman and Medieval Periods

#### Mark Maltby and Ellen Hambleton

#### Introduction

Discussions of documentary and archaeological evidence pertaining to the history of the exploitation of deer in Britain have tended to focus on the evidence from Medieval England, from where most of the recent research has been carried out (e.g. Birrell 2006; Sykes 2006; Rotherham 2007). There have, however, been several recent papers that have incorporated documentary and topographical evidence from Wales and the Welsh Marches, mainly concerned with Medieval parks, forests and chases (e.g. Silvester 2010; Langton 2011; Smith, this volume). To complement these discussions, this paper will consider zooarchaeological evidence for the exploitation of deer in south Wales from a number of important Roman and post-Roman excavations carried out during the last 30 years. The evidence relies heavily on recent, as yet unpublished, analyses of animal bones from Medieval and Early post-Medieval deposits at Laugharne Castle and the Roman town at Caerwent (Hambleton and Maltby 2004a; Hambleton and Maltby 2004b; Hambleton and Maltby 2009). The locations of these settlements and the other major sites discussed in the paper are shown in Figure 15.1. Raw data of species counts from all sites are provided in Table 15.1. Counts are restricted to those of the major domestic mammal food producing species (cattle (Bos sp.); sheep/goat (Ovis/Capra); pig (Sus sp.)) and the three species of deer that have been recorded in Wales during the periods involved. In most cases the counts are of the number of individual specimens (NISP). In a few cases the counts have been derived from selected bone counts. Although both methods tend to bias counts towards large mammals, the results from the two methods are usually compatible (Maltby 2010).

#### Deer remains from Roman period sites

Archaeological evidence for the exploitation of deer is limited to a handful of sites in southern Wales, although large assemblages have been analysed at the



town of Caerwent, the fortress at Caerleon and the auxiliary fort at Loughor. The largest assemblage in this survey was obtained from the area around the Basilica at the *civitas* capital at Caerwent, Gwent (Hambleton and Maltby 2004b). Red deer (*Cervus elaphus*) provided only 0.3 percent of the selected mammal assemblage (Table 15.1). This is typical of Romano-British urban assemblages, in which red deer elements provide less than 1% of the total cattle, sheep/goat, pig and deer counts (Maltby 2010). There was no marked chronological variation in their relative abundance, although they were marginally better represented in late Roman deposits (Hambleton and Maltby 2004b).

There was no significant bias towards elements from particular parts of the body, although vertebrae were poorly represented. Notably, there was no bias towards hindlimb elements. Indeed forelimb bones (apart from the metacarpal) were better represented. At least five scapulae were represented (Table 15.2).

Butchery marks on red deer bones included superficial chop marks on the medial aspect of a proximal radius and heavy axial blade marks along the edges of the proximal articulation of a tibia. Both are characteristic of marks commonly inflicted on cattle upper limb bones on Roman urban settlements (Maltby 2007; Maltby 2010), indicating that some deer were acquired and processed by specialist butchers. Three scapulae had been chopped transversely where the shoulder had been segmented from the upper forelimb. It is feasible

FIGURE 15.1. Map of south Wales showing principal sites discussed in this survey.

Site	Settlement Type	Date	Cattle	Sheep	Pig	Red	Roe	Fallow	NISP*	% Red		% Roe  % Fallow Source	Source
Caerwent Basilica	Town	Roman	7460	5128	5920	50	49		18607	0.3	0.3	0.0	Hambleton and Maltby 2009
Caerwent NW Tower	Town	Roman	387	103	62	16	2		570	2.8	0.4	0.0	0.0 Noddle 1983
Caerwent House	Town	Roman	3640	1843	550	6			6042	0.1	0.0	0.0	Burnett n.d.
Caerleon Baths	Legionary Fort	Roman	4470	996	654	24	-		6115	0.4	0.0	0.0	O'Connor 1986
Caerleon BT Site	Legionary Fort	Roman	200	86	127	-	8		729	0.1	0.4	0.0	Hamilton- Dyer n.d.
Caerleon Garden	Legionary Fort	Roman	362	112	213	11	19		717	1.5	2.6	0.0	Hamilton- Dyer 1993
Caerleon S Defences	Legionary Fort	Roman	338	134	395	3			870	0.3	0.0	0.0	Jones 2010
Loughor (Leucarum)	Auxiliary Fort	Roman	1834	546	728	09	63		3231	1.9	1.9	0.0	Sadler 1997
Cowbridge, Bear Field	Roadside	Roman	311	51	15	-	1		379	0.3	0.3	0.0	Sadler 1996
Cowbridge, High Street	Roadside	Roman	778	507	155				1447	0.5	0.0	0.0	0.0 Jones 1996
Thornwell Farm	Rural settlement	Roman	166	141	47				354	0.0	0.0	0.0	Pinter- Bellows 1996
RAF St Athan	Rural settlement	Roman	50	47	16				113	0.0	0.0	0.0	Higbee 2006
Whitton	Rural settlement	IA/Roman	2185	2465	1008	106	75		5839	1.8	1.3	0.0	Kinnes 1989
		_											
Rumney Wharf	Coastal settlement	Roman	50	78	∞	-			137	0.7	0.0	0.0	0.0 Hamilton- Dyer 1994

TABLE 15.1. Counts of animal bones from Roman and post-Roman sites in south Wales. Counts are derived from Number of individual specimen (NISP) counts in call cases except Thornwell Park and RAF St Athan where selected element counts were employed. Continues pp. 190-191.

Site	Settlement Type	Date	Cattle	Sheep	Pig	Red	Roe	Fallow	NISP*	% Red	% Roe	% Fallow Source	e
Laugharne (Inner Ward)	English Castle	12th	169	227	282	298	8		984	30.3	0.8	0.0 Hambl and Ma 2004a	Hambleton and Maltby 2004a
Laugharne (Inner Ward)	English Castle	L12-E13th	2195	2590	2575	470	175		8005	5.9	2.2	0.0 Hambl and Ma 2004a	Hambleton and Maltby 2004a
Laugharne (Inner Ward)	English Castle	14th	145	153	58	9	E	1	366	1.6	0.8	0.3 Hamble and Ma 2004a	Hambleton and Maltby 2004a
Laugharne (Outer Ward)	English Castle	L12-14th	118	155	89	4	Г		346	1.2	0.3	0.0 Hambl and Ma 2004a	Hambleton and Maltby 2004a
Laugharne (Inner Ward)	Castle/Mansion	Tudor	52	466	222	1	9		747	0.1	0.8	0.0 Hambl and Ma 2004b	Hambleton and Maltby 2004b
Laugharne (Inner Ward)	Castle/Mansion	17th	280	301	64	2	Г		648	0.3	0.2	0.0 Hambl and M 2004b	Hambleton and Maltby 2004b
Dryslwyn Area F	Welsh Castle	1220–1287	691	369	510	33	121		1724	1.9	7.0	0.0 Gidn	Gidney 2007
Dryslwyn Other Areas	Welsh Castle	1220–1287	3247	1985	2737	88	209	1	8267	1.1	2.5	0.0 Gidn	Gidney 2007
Dryslwyn Other Areas	English Castle	1287–1400	1866	1792	1451	133	115	3	5360	2.5	2.1	0.1 Gidn	Gidney 2007
Dryslwyn Other Areas	Decomissioning	1400–1430	541	450	336	13	33		1373	6.0	2.4	0.0 Gidn	Gidney 2007
Loughor	Castle	E12th	227	97	170	68	4		587	15.2	0.7	0.0 Node	Noddle 1993
Loughor	Castle	L12-E13th	421	58	114	124	5		722	17.2	0.7	0.0 Node	Noddle 1993
Loughor	Castle	13th	221	168	134	80	7		610	13.1	1.1	0.0 Node	Noddle 1993
Loughor	Castle	14–16th	258	87	69	29	П		444	6.5	0.2	0.0 Node	Noddle 1993
Rumney	Castle	12th	100	20	51	9	2		179	3.4	1.1	0.0 Jones 19 and pers.	Jones 1992 and pers.

\* Counts are derived from Number of individual specimen (NISP) counts in call cases except Thornwell Park and RAF St Athan where selected element counts were employed.

TABLE 15.1. continued.

Source	0.2 Jones 1992 and pers. comm.	0.0 Browne 2000	0.3 O'Connor 1986	0.0 Jones 1989	0.0 Jones 1989	0.0 Jones 1987	0.3 Jones 1981
Roe   Fallow   NISP*   % Red   % Roe   % Fallow   Source	0.2	0.0	0.3	0.0	0.0	0.0	0.3
% Roe	0.2	3.5	0.0	0.5	0.4	0.0	0.0
% Red	1.5	3.9	1.3	0.5	1.3	1.7	0.0
NISP*	457	9/8	1737	392	228	59	1647
Fallow	1		9				$\sim$
	1	31		2	П		
Red	7	34	23	2	3		
Pig	163	619	271	58	40	4	190
Sheep	74	14	325	170	48	33	313
Cattle   Sheep	211	178	1112	160	136	21	1139
Date	13th	11–13th	12–14th	13th	15–16th	12–13th	Mainly 17th
Settlement Type	Castle	Timber Castle	Small town	Abbey	Abbey	Settlement	Town
Site	Rumney	Hen Domen	Caerleon	Tintern	Tintern	Rhossili	Usk

\* Counts are derived from Number of individual specimen (NISP) counts in call cases except Thornwell Park and RAF St Athan where selected element counts were employed.

rable 15.1. continued

that these were shoulder joints preserved by smoking and/or salting, again a practice that has parallels in Roman cattle butchery (Dobney 2001; Maltby 2007).

Roe deer (*Capreolus capreolus*) also contributed 0.3 percent of the identified mammal assemblage at the Caerwent Basilica site (Table 15.1). Their rarity is typical of most Romano-British urban assemblages (Maltby 2010). There was a bias towards larger, denser bones with no records of tarsals, phalanges, ribs or vertebrae. Forelimbs were slightly better represented than hindlimbs. At least six mandibles and humeri were represented (Table 15.2).

A courtyard house in the north-west corner of Caerwent has also produced a substantial assemblage. Red deer were very poorly represented and no roe deer remains were identified (Burnett nd). A much smaller assemblage was obtained from excavations near the town wall of Caerwent (Noddle 1983). This produced an unusually high percentage of red deer (2.8 percent).

Four sites from the legionary fortress at Caerleon, 13 km to the west of Caerwent, are included in this survey (Table 15.1). Three assemblages contained very small percentages of red and roe deer (both species under 0.5 percent). The fourth, from the Museum Garden site, produced very high percentages of roe (2.6 percent) and red deer (1.5 percent) (Hamilton-Dyer 1993). These bones were largely derived from a well, which also included significant numbers of wild boar (Sus scrofa) and crane (Grus sp.) bones, and other luxury foods such as grapes and figs. The well had partly been filled with kitchen waste from the residence of a high-ranking officer (Zienkiewicz 1993, 77). Excluding this deposit, the percentages of red deer (0.6 percent) and roe deer (0.5 percent) are at levels more typical of other assemblages from the fortress (Hamilton-Dyer 1993).

	Caerwent				Leucarum	ı	Laugharn	e Castle		
	Basilica Si	te			(Sadler 20	007)			om Inner W	
	(Hamblet	on and Ma	ltby 2009)				(Hamblet	on and Ma	ltby 2004a)	)
	R	ed	R	oe .	Red	Roe	R	ed	R	oe
Element	NISP	MNE	NISP	MNE	NISP	NISP	NISP	MNE	NISP	MNE
Antler	4	3	I	I	17	5	20	nc	5	nc
Maxilla	I	I	I	I	I		II	5	4	4
Skull frag			I	I			ΙΙ	3		
Mandible	3	3	6	6	2	4	7	4	7	6
Teeth	5	nc			2	I	18	nc	9	nc
Scapula	6	5	I	I	3	I	5	4	7	7
Humerus	I	I	7	6	5	7	8	6	9	7
Radius	6	4	4	4	2	9	10	6	9	8
Ulna	4	3	4	3	I	6	6	4	2	2
Pelvis	2	I	5	5	3	3	42	19	9	9
Femur	3	I	I	I	5	3	112	39	4	3
Patella							I	I		
Tibia	3	2	6	4	I	8	125	61	21	13
Carpals					2		I	I		
Astragalus					I	2	40	39		
Calcaneus					2		45	43	6	6
Cuboid							7	7		
Tarsals							9	9		
Metacarpal			8	5	2	3	2	2	5	4
Metatarsal	4	2	4	2	3	8	3	3	19	8
Metapodial									I	nc
Phalanx 1	3	I			2	3	2	I	I	I
Phalanx 2	4	I			I		I	I		
Phalanx 3							I	I		
Atlas	I	I							I	I
Axis							I	I	2	2
Lumbar V					5					
Sacral V							I	I		
Total	50		49		60	63	489		121	

NISP = number of individual specimens; MNE = minimum number of element; nc = MNE not calculated

Both red and roe deer were also (by Romano-British standards) well represented at another military site, the auxiliary fort of *Leucarum* situated at Loughor, on the outskirts of Swansea. They each provided 1.9 percent of the assemblage (Sadler 1997), although the red deer numbers were slightly inflated by a high antler count and possibly an associated group of five lumbar vertebrae (Table 15.2).

Assemblages from the roadside settlement of Cowbridge, South Glamorgan, had low numbers of red and roe deer (Jones 1996; Sadler 1996) (Table 15.1). Only one fragment of red deer was found at Rumney Wharf (Hamilton-Dyer 1994) and two small assemblages from rural settlements at Thornwell Farm

TABLE 2. Deer elements in assemblages recorded in detail. NISP = number of individual specimens; MNE = minimum number of element; nc = MNE not calculated. Caerwent = Basilica Site (Hambleton and Maltby 2009); Leucarum (Sadler 2007); LC = Laugharne Castle Medieval deposits from Inner Ward (Hambleton and Maltby 2004a).

(Gwent) and RAF St Athan (Vale of Glamorgan) included no deer remains at all (Pinter-Bellows 1996; Higbee 2006). The large assemblage from Whitton (Vale of Glamorgan) produced higher percentages of both red (1.8 percent) and roe deer (1.3 percent) (Kinnes 1989). Unfortunately the assemblage from this high status Late Iron Age and Romano-British settlement was not subdivided by period and no further details of the deer assemblages were published.

Information about mortality profiles of the deer found on Roman sites is limited, because of small sample sizes and lack of discussion in some reports. However, the great majority of the red and roe deer from Caerwent, Caerleon and *Leucarum* were adult animals.

#### Deer remains from post-Roman sites

Evidence for the hunting of deer is very poorly documented in the archaeological record of the period between the fifth and eleventh century. The hillfort of Dinas Powys, Vale of Glamorgan produced a large bone assemblage. Unfortunately, only part of it was retained. The assemblage analysed from this high status site was dominated by pig, followed by cattle and sheep/goat. Only fifteen elements of deer were identified but not to species level (Haglund-Calley and Cornwall 1963). Gilchrist's (1988) reanalysis of the bones did not consider wild species in the published discussion. No other Dark Age sites from south Wales have produced a faunal sample worthy of detailed analysis.

Nearly all of the few large animal bone assemblages from the period after 1066 have been obtained from castles. The two main assemblages that have been examined in detail are located at Laugharne and Dryslwyn, Dyfed (Figure 15.1).

Laugharne Castle was occupied for most of the Medieval period by Anglo-Norman families. Red deer bones were particularly abundant (30.3 percent) in the earliest twelfth century deposits from the Inner Ward outnumbering all the domestic species in the assemblage. They were also found commonly (5.9 percent) in the substantial assemblages obtained from late twelfth and early thirteenth century deposits. They became less abundant in Late Medieval features (1.6 percent) and virtually disappeared in the post-Medieval deposits (0.1–0.3 percent). There were intra-site variations, however. In the Outer Ward, red deer fragments were relatively uncommon (1.2 percent) throughout the Medieval deposits (Table 15.1) (Hambleton and Maltby 2004a; Hambleton and Maltby 2004b).

The high percentages of red deer in the earlier deposits, were remarkable considering only a small range of their bones were commonly deposited in the Inner Ward. The assemblages were dominated by bones of the haunches and adjacent areas (femur, tibia, pelvis, astragalus and calcaneus). Metatarsals, phalanges and all forelimb bones were very poorly represented. Cranial elements consisted mainly of worked antler (Table 15.2). Disarticulation of the feet was evidenced by knife cuts and, less commonly, by chop marks on the astragalus, calcaneus and distal tibia. Chop marks on the pelvis and the proximal femur indicate segmentation of the carcass around the hip joint.

Roe deer bones were less well represented than red deer in the Medieval deposits, but were nevertheless found in larger proportions than in most of the Roman assemblages. There was a much more even representation of forelimb and hindlimb elements, but cranial elements were under-represented. Only a single pelvis from a fourteenth century context was identified as fallow deer (*Dama dama*).

The largest faunal assemblage from a Medieval site in south Wales has been obtained from Dryslwyn Castle. This is situated about 23 km to the north-east of Laugharne (Figure 15.1). In contrast to Laugharne, Dryslwyn was a Welsh castle from its foundation in the 1220s until its capture by the English in 1287. Thereafter, a constable held the castle on behalf of the English king or lords (Gidney and Caple 2007). Red deer percentages from thirteenth and fourteenth century samples were slightly lower (1.1–2.5 percent) than contemporary assemblages from Laugharne (Gidney 2007). Indeed, roe deer outnumbered red deer bones at Dryslwyn in most periods, particularly in the earliest phase (7.0 percent). Fallow deer identifications were restricted to four bones, three from the initial phase of English occupation in the fourteenth century (Table 15.1). No detailed information about butchery and body part representation has been published, although Gidney (2007, 307) did note that red deer hindlimbs were better represented than the forelimbs.

Another Anglo-Norman foundation at Loughor Castle, 30 km east of Laugharne, was located within the boundaries of the Roman auxiliary fort of *Leucarum* discussed above. The assemblage of over 2,000 bones produced very high percentages of red deer throughout its twelfth to thirteenth century phases (13.1–17.2 percent). Although percentages decreased in the fourteenth to sixteenth century deposits (6.5 percent), red deer bones were substantially more abundant than at Laugharne and Dryslwyn. Unfortunately, no information about body part representation was published. Roe deer were present in smaller but consistent numbers (0.2–1.1 precent) but no fallow deer bones were identified (Noddle 1993).

Excavations at the Anglo-Norman Rumney Castle, South Glamorgan, produced a small twelfth century assemblage dominated by cattle, but with a relatively high percentage of red deer (3.4 percent). Roe deer was also present (1.1 percent). A larger sample from thirteenth century levels produced lower percentages of red deer (1.5 percent) and single occurrences of both roe and fallow deer (Jones 1992 and *pers. comm.*).

Further north-east, the timber castle at Hen Domen, Montgomery, produced an assemblage mainly derived from one pit from the bailey. This was dominated by pig. Both red (3.9 percent) and roe deer (3.5 percent) were well represented. The limited evidence for body part representation showed a bias towards the hindlimb (Browne 2000, 131). No bones of fallow deer were identified.

Unfortunately, assemblages from non-castle sites in southern Wales are extremely scarce. Medieval deposits from Caerleon have produced the largest sample of over 1,700 specimens (O'Connor 1986). Red deer were found in

smaller amounts (1.3 percent) than in nearly all the castle samples and no roe deer bones were identified at all. Perhaps surprisingly, several fallow deer bones were present in demolition layers dated to the thirteenth century, a period when they were not recorded in any of the castles discussed above.

A fairly small sample was obtained from Tintern Abbey. Modest quantities of red deer (0.5–1.3 percent) and roe deer bones (0.4–0.5 percent) were recovered from both Medieval and Early post-Medieval deposits but no fallow deer bones were identified (Jones 1989). The rural settlement at Rhossili, West Glamorgan, produced a very small faunal sample that included a single bone of red deer (Jones 1987).

Apart from Laugharne, the only post-Medieval assemblage of significant size has come from the town of Usk, Gwent. Most of the assemblage was of seventeenth century date and was dominated by cattle, whereas deer bones were rare. The only species identified was fallow (0.3 percent) (Jones 1981).

Discussions related to post-Roman mortality patterns of deer have been limited. It seems, however, that the majority of venison consumed belonged to adult animals of all three species. At Laugharne, 85 percent of the latest-fusing epiphyses of red deer limb bones had fused, indicating the focus on the acquisition of fully-grown animals. Adults also dominated the smaller roe deer assemblage (Hambleton and Maltby 2004a). Sub-adult roe deer were quite common in the Dryslwyn assemblage (Gidney 2007, 307).

#### Discussion

The survey has confirmed that only two species of deer were definitely present in southern Wales during the Roman period. The absence of fallow deer is unsurprising, as the presence of this imported species has hitherto only been authenticated on a small number of high status sites in southern England (Sykes *et al.* 2011). Although the percentages of red and roe deer are generally low on the Welsh sites, there are some indications that they were more likely to be found on sites associated with people of high status. The clearest example is the presence of both species amongst other 'luxury' foods in kitchen waste associated with high-ranking officers at the legionary fortress of Caerleon. The deposition of these together within a disused well suggests that they were consumed at a special banquet hosted by the officer involved (Hamilton-Dyer 1993, 136). If it was derived from one meal, it included the meat from at least four cranes, a wild boar, two roe deer and possibly two red deer. The remaining assemblages from this site and others in Caerleon were much less diverse with deer bones present in only small quantities.

Variations in dietary breadth within Roman military sites have also been observed at the fort of South Shields on Hadrian's Wall. Here, assemblages associated with the commandant's residence produced a much broader range of species, including red and roe deer, than in deposits associated with the barrack blocks (Stokes 2000). The high percentages of deer remains at *Leucarum* may

also reflect the fact that most of the bones were recovered from the vicinity of the *praetorium*, and perhaps also associated with the garrison commanders (Sadler 1997).

Significantly higher percentages of red deer remains were found in the assemblage from near the north-west defences in Caerwent than from elsewhere in the town, which may indicate the presence of a high status residence nearby. There are indications from the butchery evidence that some of the red deer in Caerwent were acquired and processed by the urban specialist butchers.

The presence of large quantities of deer on high status Medieval sites in Wales is to be expected given their prevalence at castles and manors in England (Sykes 2006). The main difference in comparison with southern England is that fallow deer were present, if at all, only in small numbers. The absence of fallow from twelfth century deposits is understandable, as their frequency tended to increase from the mid-twelfth century onwards as deer parks stocked with fallow became established. However, they are also virtually absent from later Medieval deposits from Laugharne, Dryslwyn, Loughor and Rumney. They were found as infrequently as in urban deposits at Caerleon. There is therefore only tentative evidence that fallow deer were introduced to Wales during this period. One could account for the presence of the few fallow deer as imports of salted venison (Birrell 2006).

There may well have been sufficient numbers of red and roe deer in the forests and chases of south Wales to meet the needs of the Welsh or Anglo-Norman gentry. The percentages of deer on the castle sites tended to decrease during the Medieval period (Table 15.1), which might reflect pressures on diminishing resources. However, percentages also vary according to areas within the castles excavated. At Laugharne in particular, much higher percentages of deer remains were associated with the kitchen waste from the Inner Ward than from peripheral parts of the castle. High percentages of deer in the earliest phases of these castles may reflect the desire of the elite to demonstrate their wealth, legitimise their status and strengthen their position in the area by commonly hosting feasts.

The relative abundance of red and roe deer varies between Medieval sites. At the Anglo-Norman Castles of Laugharne, Loughor and Rumney, red deer outnumbered roe. The opposite was the case in the period of Welsh occupation at Dryslwyn. Whether this reflects variations in local availability is unclear, but it is interesting to note that red deer outnumbered roe at Dryslwyn during the initial phase of English occupation. At this time, documentary evidence indicates that provisioning of the castle garrison relied more on purchases from market towns (Gidney and Caple 2007). Isotopic analysis of pigs has raised the possibility that they may have been procured from another source at this time (Millard *et al.* 2011). It is feasible that at least some of the red deer may have been acquired from outside the local area.

Only at Laugharne (Table 15.2) has it been possible to demonstrate the expected dominance of haunches of red deer that are such a prominent feature

of assemblages of red and fallow deer from high status sites in England (Sykes 2006; Thomas 2007). It is likely that similar strict rules regarding the hunting of large deer and the distribution of their body parts were in operation in these Anglo-Norman castles. The same may have been true during the Welsh occupation at Dryslwyn but details are lacking.

This brief survey has demonstrated both similarities and differences regarding the acquisition and consumption of venison between south Wales and southern England, particularly in the Medieval period. It provides the basis for more detailed comparisons with future assemblages. Re-examination of some of the analysed assemblages would provide further information about element representation, butchery practices and isotopic signatures. There is also potential for a comprehensive survey of the stature of red deer and possible changes related to variations and changes in habitat in the region.

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