Animal Bones and Archaeology

Recovery to archive

Supplement 1: Key reference resources

Historic England Handbooks for Archaeology
Summary


Additional contributors and acknowledgements are provided in the main document.

All hyperlinks in this supplement were valid in November 2019.
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Comparative assemblage resources

Historic England regional reviews of animal bone data and other major period syntheses


Serjeantson, D 2011 *A Review of Animal Remains from the Neolithic and Early Bronze Age of Southern Britain* [data-set]. York: Archaeology Data Service [distributor]. https://doi.org/10.5284/1000396

Online zooarchaeological datasets

https://doi.org/10.5284/1000235

Chicken Coop nd *The Chicken Project* [data-set].
http://www.nottingham.ac.uk/~aczzoo/chicken_search/index.php

Dama International: Fallow Deer Project nd *Zooarchaeology @ Nottingham Deer Bone Database* [data-set].
http://www.nottingham.ac.uk/zooarchaeology/deer_bone/search.php

https://doi.org/10.5284/1043267

Grimm, J 2008 *WAMAP: Wessex Archaeology Metric Archive Project* [data-set]. York: Archaeology Data Service [distributor].
https://doi.org/10.5284/1000043

University of Southampton 2003 *Animal Bone Metrical Archive Project (ABMAP)* [data-set]. York: Archaeology Data Service [distributor].
https://doi.org/10.5284/1000350

University of York 2008 *Environmental Archaeology Bibliography (EAB)* [data-set]. York: Archaeology Data Service [distributor].
https://doi.org/10.5284/1000225

Wright, E, Viner-Daniels, S, Albarella, U, Street, M, Makowiecki, D, Steppan, K and Brugal J-P 2016 *Biometrical Database of European Aurochs and Domestic Cattle* [data-set]. San Francisco: Open Context [distributor].
https://doi.org/10.6078/M7TX3C9V

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Species biogeography


Yalden, D W 1999 *The History of British Mammals*. London: Poyser Natural History


Online taxonomic and zoological species guides


3 Anatomical nomenclature


University of Nottingham nd Archaeological Fish Resource. http://fishbone.nottingham.ac.uk/
4
Zooarchaeological methods and conventions

General zooarchaeological texts (including quantification)


Davis, S J M 1987 The Archaeology of Animals. London: BT Batsford

Gifford-Gonzalez, D P 2018 An Introduction to Zooarchaeology. Berlin: Springer


Lyman, R L 2008 Quantitative Palaeozoology. Cambridge: Cambridge University Press


Published bone inventory/recording databases and spreadsheets


Zone conventions


Age at death

Tooth development


Carter, R J 2005 'A method to estimate the ages at death of red deer (Cervus elaphus) and roe deer (Capreolus capreolus) from developing mandibular dentition and its application to Mesolithic NW Europe', in Ruscillo, D (ed) Recent Advances in Ageing and Sexing Animal Bones. Oxford: Oxbow, 40–61


Tooth eruption and wear

Brown, G T 1913 Dentition as Indicative of the Age of Animals of the Farm, 6th edn. London: John Murray


Gaastra, J S, 2016 'The quadratic crown height method and bovidae: Ageing sheep (Ovis aries), goats (Capra hircus) and cattle (Bos taurus)'. Journal of Archaeological Science: Reports 10, 172–90 https://doi.org/10.1016/j.jasrep.2016.09.022


O’Connor, T 1988 Bones from the General Accident Site, Tanner Row. London: Council for British Archaeology/York Archaeological Trust


Payne, S 1984 ‘The use of early 19th century data in ageing cattle from archaeological sites and the relationship between the eruption of M3 and P4’. Circara 2, 77–82


Wright, E, Viner Daniels, S, Parker-Pearson, M and Albarella, U 2014 ‘Age and season of pig slaughter at Late Neolithic Durrington Walls (Wiltshire, UK) as detected through a new system for recording tooth wear’. Journal of Archaeological Science 52, 497–514. https://doi.org/10.1016/j.jas.2014.09.009

Fusion ages: mammals


Hatting, T 1983 Osteological investigations on Ovis aries L’. Dansk Naturhistorisk Forening 144, 115–35

Hufthammer, A K 1995 ‘Age determination of reindeer (Rangifer tarandus L.’). Archaeozoologia VII, 33–42
Bird bone maturity

https://doi.org/10.1002/(SICI)1099-1212(199707/08)7:4<330::AID-OA330>3.0.CO;2-Q


Sex determination

Various mammal species


West, B 1990 ‘A tale of two innominates’. Circaea 6, 207–14
Cattle


Sheep and goats

Boessneck, J 1969 'Osteological differences between sheep (Ovis aries Linné) and goat (Capra hircus Linné)', in Brothwell, D R and Higgs, E S (eds) Science in Archaeology: A Comprehensive Survey of Progress and Research. London: Thames and Hudson, 331–58


Hatting, T 1995 'Sex-related changes in the pelvic bone of domestic sheep (Ovis aries L)'. Archaeofauna 4, 71–6


Pigs


Equids


Dogs


Rodents

Birds


Herpetofauna


Glastra, R 1980 Handleiding bij de herpetologische vergelijkingsslectie van het IPP. Amsterdam: Albert Egges van Giffen Instituut voor Prae-en Protohistorie (IPP), 7

Standard biometric conventions


Morales, A and Rosenlund, K 1979 Fish Bone Measurements. Copenhagen: Steenstrupia

Payne, S and Bull, G 1988 ‘Components of variation in measurements of pig bones and teeth and the use of measurements to distinguish wild from domestic pig remains’. Archaeozoologia II, 27–66


**Withers heights conversion factors**

Various species


Cattle

Foch, J 1966 ‘Metrische Untersuchungen an Metapodien einiger europäischer Rinderrassen’. Unpublished dissertation, University of Munich


Sheep


Pigs


Horses


Dogs


**Palaeopathology**

**General texts**


**General recording guides**


Vann, S and Thomas, R 2006 ‘Humans, other animals and disease: A comparative approach towards the development of a standardised recording protocol for animal palaeopathology’. *Internet Archaeology* **20**. [http://dx.doi.org/10.11141/ia.20.5](http://dx.doi.org/10.11141/ia.20.5)
Dental recording guides


Dobney, K, Ervynck, A and La Ferla, B 2002 'Assessment and further development of the recording and interpretation of linear enamel hypoplasia in archaeological pig populations'. Environmental Archaeology 7, 35–46. https://doi.org/10.1179/enc.2002.7.1.35


Joint disease recording guides


Taphonomy

General introduction


Denys, C 2002 'Taphonomy and experimentation'. Archaeometry 44, 469–84. https://doi.org/10.1111/1475-4754.00079

Lyman, R L 1994 Vertebrate Taphonomy. Cambridge: Cambridge University Press


Tooth marks and digestion


Pobiner, B 2008 'Paleoecological information in predator tooth marks'. Journal of Taphonomy 6, 373–97
Bone weathering


Bone diagenesis


Accumulation processes


Butchery


Dominguez-Rodrigo, M 2008 ‘Conceptual premises in experimental design and their bearing on the use of analogy: An example from experiments on cut marks’. World Archaeology 40, 67–82. https://doi.org/10.1080/00438240701843629


Identification resources

Virtual comparative collections

All classes

Virtual Zooarchaeology of the Arctic Project (VZAP) 2019 Version 2.2.1.4, 6 March 2019

Mammals

https://www.archeozoo.org/archeozootheque/index/category/155-cheval_langen_horse_lang_langes_caballo_lang_

Yvinec, J-H 2019 *Equus caballus – Fetus (22 Weeks)*. ArchéoZothèque.
https://www.archeozoo.org/archeozootheque/index/category/35-cheval_foetus_langen_horse_fetus_lang_langes_caballo_feto_lang_

Birds

Aves3D 2011 https://www.aves3d.org/

https://www.faunatoolkit.com/

Fish

Böhme, M and Ilg, A 2004 *Osto*.  
http://www.wahre-staerke.com/osteot/

http://isis.cmima.csic.es/aforo/

https://www.nabohome.org/products/manuals/fishbone/index.html

http://osteobase.mnhn.fr/

University of Nottingham nd *Archaeological Fish Resource.*
http://fishbone.nottingham.ac.uk/

Identification guides: mammal remains


Neonatal mammals

https://doi.org/10.1016/j.jas.2015.10.003
Guides to distinguishing morphologically similar mammal species

Sheep and goats

Boessneck, J 1969 ‘Osteological differences between sheep (Ovis aries Linné) and goat (Capra hircus Linné)’, in Brothwell, D R and Higgs, E S (eds) Science in Archaeology: A Comprehensive Survey of Progress and Research. London: Thames and Hudson, 331–58


Pigs and wild boar


Payne, S and Bull, G 1988 ‘Components of variation in measurements of pig bones and teeth, and the use of measurements to distinguish wild from domestic pig remains’. Archaeozoologia II, 27–66

Equids


Large mammals


Deer


Small mammals


Harris, S and Yalden, D W (eds) 2008 *Handbook of British Mammals*, 4th edn. Southampton: The Mammal Society


Dogs and wolves


Cats


Rabbits and hares


Yalden, D W 1977 *The Identification of Remains in Owl Pellets*. Reading: Mammal Society

**Marine mammals**


**Identification guides: bird remains**


Tomek, T and Bocheński, Z M 2009 *A Key for the Identification of Domestic Bird Bones in Europe: Galliformes and Columbiformes*. Kraków: Institute of Systematics and Evolution of Animals, Polish Academy of Sciences

**Guides to distinguishing morphologically similar bird species**

Galliforms


Tomek, T and Bocheński, Z M 2009 *A Key for the Identification of Domestic Bird Bones in Europe: Galliformes and Columbiformes*. Kraków: Institute of Systematics and Evolution of Animals, Polish Academy of Sciences

**Swans, geese and ducks**


Columbids


Tomek, T and Bocheński, Z M 2009 *A Key for the Identification of Domestic Bird Bones in Europe: Galliformes and Columbiformes*. Kraków: Institute of Systematics and Evolution of Animals, Polish Academy of Sciences

**Corvids**

Tomek, T and Bocheński, Z M 2000 *The Comparative Osteology of European Corvids (Aves: Corvidae), with a Key to the Identification of their Skeletal Elements*. Kraków: Institute of Systematics and Evolution of Animals, Polish Academy of Sciences

**Identification guides: amphibian and reptile remains**


Glastra, R 1980 Osteologische Determinatie van de Inheemse Herpetofauna: Handleiding bij de Herpetologische Vergelijkingscollectie van het IPP. Amsterdam: Albert Egges van Giffen Instituut voor Prae-en Protohistorie


**Identification guides: fish remains**


