

Appendices

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Appendix 1: The Romano-British $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ Dataset

Excel file: [Roman_Britain_CN_Isotope_Dataset.xlsx](#)

.csv files: [Roman_Britain_CN_Isotope_Dataset.csv](#) ; [Roman_Britain_CN_Isotope_Dataset - Faunal.csv](#)

“active” dataset file: [Active_Roman_Britain_CN_Isotope_Dataset.xlsx](#)

Please contact the author if you have any issues accessing these documents.

Appendix 2: Brief Justification for Omitting Grey Literature Data

Commercial reports relating to development-led investigations dominate archaeological grey literature, but are typically titled with reference to the site's name, location, and current project stage, giving no indication of analytical techniques applied to recovered human remains. This makes it incredibly difficult to find sites where isotope analysis has formed part of post-excavation methodologies, without having prior knowledge of specific sites where it was applied. For instance, the existence of $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data for a Romano-British individual within the Hornsea Offshore Windfarm monograph (Tuck, 2023) is only known to the author through communication with AIRPL colleagues who conducted the analysis, and does not appear in Wessex Archaeology's (2025) Online Library when "isotopes" is searched. This reflects wider issues with grey literature database search mechanisms. The ADS Library (2025) exemplifies this, as although queries can be filtered by different criteria (e.g. resource type, period, and publication date) and keywords for subjects discussed in the works are listed, "isotopes" isn't included in this keyword list. A search of the term yields just seven records when filtered for the Roman period, with only three works involving $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ analysis (two of which relate to the same site and data), emphasising the difficulty of querying databases to find useable grey literature. In 2015, Evans aptly described these online databases as requiring a "simple type and hope" approach to data collection, which unfortunately hasn't been rectified in the decade since. As well as lacking sophisticated search mechanisms, grey literature repositories don't always undertake thorough quality control checks for uploaded data. While there are no formal conventions for presenting isotope data unlike with radiocarbon dating (Millard, 2014), there's a generally well-established expectation that %C, %N, and C:N atomic ratio are provided alongside $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values for comparison against collagen preservation quality control parameters (DeNiro, 1985; Ambrose, 1990; Van Klinken, 1999) to ensure data reliability and reproducibility. Formal publications like journal articles go through peer review processes to assess validity of analytical results and interpretations, typically involving specialist reviewers familiar with the data and its expected presentation, which usually results in required revisions before they can be accepted for publication (Matthews, 2015; Steer and Ernst, 2021). For most online repositories, criteria for accepted data primarily focuses on inclusion of appropriate metadata and dataset format (Evans, 2022) rather than the content and data reporting standards for specialist analyses. This ultimately means that when relevant isotope data can be found in grey literature databases, it doesn't always contain necessary data for quality assurance, and researchers therefore risk incorporating unreliable data into analyses. These reasons justify exclusion of grey literature data from the current study.

Appendix 3: Data Standardisation and Categorisation

Table A3.1: Tooth type data included in the dataset is standardised using White and Folkens' (1991) notation style.

<i>Tooth Type</i>	<i>Notation</i>
<i>Permanent Dentition</i>	
First incisor	I1
Second Incisor	I2
Canine	C1
First premolar	PM1
Second premolar	PM2
First molar	M1
Second molar	M2
Third molar	M3
<i>Deciduous Dentition</i>	
Deciduous first incisor	di1
Deciduous second incisor	di2
Deciduous canine	dc1
Deciduous first molar	dm1
Deciduous second molar	dm2

Table A3.2: Estimated biological sex data included in the dataset is standardised using Buikstra and Ubelaker's (1994) terminology and notation style.

<i>Biological Sex Estimation</i>	<i>Notation</i>
Male	M
Probable Male	M?
Probable Female	F?
Female	F
Undetermined	U

Table A3.3: Age category data included in the dataset is standardised using Buikstra and Ubelaker's (1994) terminology.

<i>Biological Sex Estimation</i>	<i>Notation</i>
Adolescent	12 – 20 years
Young Adult	20 – 35 years
Middle Adult	35 – 50 years
Old Adult	50+ years
Non-Adults	Under 12 years

Table A3.4: List of sites in the Romano-British human dataset categorised by geographical region.

<i>Geographical Region</i>	<i>Site Name and County</i>
South-East Scotland	Musselburgh (East Lothian)
North England	Trentholme Drive (North Yorkshire) Blossom Street (North Yorkshire) Driffeld Terrace (North Yorkshire) Bainesse Farm, Catterick (North Yorkshire) Catterick Bridge, Catterick (North Yorkshire) Dere Street, Catterick (North Yorkshire) Honeypot Road, Catterick (North Yorkshire) Racecourse, Catterick (North Yorkshire) Hollow Banks, Scorton (North Yorkshire) Bainesse, Catterick (North Yorkshire)
East England	A14-10 Brampton West (Cambridgeshire) A14-11 Brampton West (Cambridgeshire) A14-38 Bar Hill (Cambridgeshire) A14-20 River Great Ouse (Cambridgeshire) A14-28 Fenstanton Gravels (Cambridgeshire) A14-19 River Great Ouse (Cambridgeshire) A14-27 Fenstanton Gravels (Cambridgeshire) A14-7A Brampton West (Cambridgeshire)
South-East England	Lankhills, Winchester (Hampshire) Eton College Rowing Course (Buckinghamshire) Yarnton (Oxfordshire) Gravesend (Kent) Eastern Cemetery (London) Southern Cemetery (London) Western Cemetery (London) Andover Road, Winchester (Hampshire) Hyde Close, Winchester (Hampshire) Hyde Street, Winchester (Hampshire) Chester Road, Winchester (Hampshire) Queenford Farm, Dorchester-on-Thames (Oxfordshire) Tubney Wood Quarry (Oxfordshire) 1-4 Giltspur Street (London) St. Bartholomew's Hospital (London) Lant Street (London) Great Dover Street (London) Spitalfields Market (London) Courage Brewery (London) Northgate House (London) Atlantic House (London) Mansell Street (London) Trinity Street (London) Red Cross Way (London) Basinghall Street (London) Haydon Street (London)

Table A3.4 (continued): List of sites in the Romano-British human dataset categorised by geographical region.

South-West England	Poundbury Camp (Dorset) London Road (Gloucestershire) Horcott Quarry (Gloucestershire) Cotswold Community (Gloucestershire) Alington Avenue (Dorset) Albert Road (Dorset) Gussage All Saints (Dorset) Maiden Castle Road (Dorset) Old Vicarage (Dorset) Tolpuddle Ball (Dorset) Portesham G14, Friar Waddon (Dorset) Boscombe Down (Wiltshire) Rotherley Down flat grave, Berwick St. John (Wiltshire)
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Table A3.5: Site names and the counties they are located in are presented here alongside the number of individuals each site has contributed to the Romano-British human isotope dataset. Full bibliographic references for each site are also provided.

<i>Site Name and County</i>	<i>Number of Individuals</i>	<i>References</i>
Poundbury Camp (Dorset)	36	Richards, M.P., Hedges, R.E.M, Molleson, T.I. and Vogel, J.C. (1998) 'Stable isotope analysis reveals variations in human diet at the Poundbury Camp cemetery site', <i>Journal of Archaeological Science</i>, 25(12), pp. 1247-1252. Available at: https://doi.org/10.1006/jasc.1998.0307 Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i>, 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022 Redfern, R.C., Millard, A.R. and Hamlin, C. (2012) 'A regional investigation of subadult dietary patterns and health in late Iron Age and Roman Dorset, England', <i>Journal of Archaeological Science</i>, 39(5), pp. 1249-1259. Available at: https://doi.org/10.1016/j.jas.2011.12.023
Trentholme Drive (North Yorkshire)	42	Müldner, G. and Richards, M.P. (2007) 'Stable isotope evidence for 1500 years of human diet at the city of York, UK', <i>American Journal of Physical Anthropology</i> , 133(1), pp. 682-697. Available at: https://doi.org/10.1002/ajpa.20561
Blossom Street (North Yorkshire)	17	Müldner, G. and Richards, M.P. (2007) 'Stable isotope evidence for 1500 years of human diet at the city of York, UK', <i>American Journal of Physical Anthropology</i> , 133(1), pp. 682-697. Available at: https://doi.org/10.1002/ajpa.20561
London Road (Gloucestershire)	53	Chenery, C., Müldner, G., Evans, J., Eckardt, H. And Lewis, M. (2010) 'Strontium and stable isotope evidence for diet and mobility in Roman Gloucester, UK', <i>Journal of Archaeological Science</i>, 37(), pp. 150-163. Available at: https://doi.org/10.1016/j.jas.2009.09.025 Cheung, C., Schroeder, H. and Hedges, R.E.M. (2012) 'Diet, social differentiation and cultural change in Roman Britain: new isotopic evidence from Gloucestershire', <i>Archaeological and Anthropological Science</i>, 4(1), pp. 61-73. Available at: https://doi.org/10.1007/s12520-011-0083-y
Horcott Quarry (Gloucestershire)	22	Cheung, C., Schroeder, H. and Hedges, R.E.M. (2012) 'Diet, social differentiation and cultural change in Roman Britain: new isotopic evidence from Gloucestershire', <i>Archaeological and Anthropological Science</i> , 4(1), pp. 61-73. Available at: https://doi.org/10.1007/s12520-011-0083-y

Cotswold Community (Gloucestershire)	24	Cheung, C., Schroeder, H. and Hedges, R.E.M. (2012) 'Diet, social differentiation and cultural change in Roman Britain: new isotopic evidence from Gloucestershire', <i>Archaeological and Anthropological Science</i> , 4(1), pp. 61-73. Available at: https://doi.org/10.1007/s12520-011-0083-y
Alington Avenue (Dorset)	12	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Albert Road (Dorset)	7	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022 Redfern, R.C., Millard, A.R. and Hamlin, C. (2012) 'A regional investigation of subadult dietary patterns and health in late Iron Age and Roman Dorset, England', <i>Journal of Archaeological Science</i> , 39(5), pp. 1249-1259. Available at: https://doi.org/10.1016/j.jas.2011.12.023
Gussage All Saints (Dorset)	1	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Maiden Castle Road (Dorset)	9	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022 Redfern, R.C., Millard, A.R. and Hamlin, C. (2012) 'A regional investigation of subadult dietary patterns and health in late Iron Age and Roman Dorset, England', <i>Journal of Archaeological Science</i> , 39(5), pp. 1249-1259. Available at: https://doi.org/10.1016/j.jas.2011.12.023
Old Vicarage (Dorset)	6	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Tolpuddle Ball (Dorset)	2	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022

Lankhills, Winchester (Hampshire)	106	Cummings, C. and Hedges, R.E.M. (2010) 'Carbon and nitrogen stable isotope analyses' in P. Booth, A. Simmonds, A. Boyle, S. Clough, H.E.M. Cool and D. Poore (eds) <i>The Late Roman Cemetery at Lankhills, Winchester</i> . Oxford: Oxford Archaeology, pp. 411-421
Eton College Rowing Course (Buckinghamshire)	1	Stevens, R.E., Lightfoot, E., Allen, T.G. and Hedges, R.E.M. (2012) 'Palaeodiet at Eton College Rowing Course, Buckinghamshire: isotopic changes in human diet in the Neolithic, Bronze Age, Iron Age and Roman periods throughout the British Isles', <i>Archaeological and Anthropological Sciences</i> , 4(1), pp. 167-184. Available at: https://doi.org/10.1007/s12520-012-0089-0
Yarnton (Oxfordshire)	4	Lightfoot, E., O'Connell, T.C., Stevens, R.E., Hamilton, J., Hey, G. and Hedges, R.E.M. (2009) 'An investigation into diet at the site of Yarnton, Oxfordshire, using stable carbon and nitrogen isotopes', <i>Oxford Journal of Archaeology</i> , 28(3), pp. 301-322. Available at: https://doi.org/10.1111/j.1468-0092.2009.00330.x
Gravesend (Kent)	9	Pollard, A.M., Ditchfield, P., McCullagh, J.S.O., Allen, T.G., Gibson, M., Boston, C., Clough, S., Marquez-Grant, N. and Nicholson, R.A. (2011) "'These boots were made for walking": the isotopic analysis of a C ₄ Roman inhumation from Gravesend, Kent, UK', <i>American Journal of Physical Anthropology</i> , 146(1), pp. 446-456. Available at: https://doi.org/10.1002/ajpa.21602
Eastern Cemetery (London)	2	Scott, S.R., Shafer, M.M., Smith, K.E., Overdier, J.T., Cunliffe, B., Stafford Jr, T.W. and Farrell, P.M. (2020) 'Elevated lead exposure in Roman occupants of Londinium: new evidence from the archaeological record', <i>Archaeometry</i> , 62(1), pp. 109-129. Available at: https://doi.org/10.1111/arcm.12513
Southern Cemetery (London)	2	Scott, S.R., Shafer, M.M., Smith, K.E., Overdier, J.T., Cunliffe, B., Stafford Jr, T.W. and Farrell, P.M. (2020) 'Elevated lead exposure in Roman occupants of Londinium: new evidence from the archaeological record', <i>Archaeometry</i> , 62(1), pp. 109-129. Available at: https://doi.org/10.1111/arcm.12513
Western Cemetery (London)	5	Scott, S.R., Shafer, M.M., Smith, K.E., Overdier, J.T., Cunliffe, B., Stafford Jr, T.W. and Farrell, P.M. (2020) 'Elevated lead exposure in Roman occupants of Londinium: new evidence from the archaeological record', <i>Archaeometry</i> , 62(1), pp. 109-129. Available at: https://doi.org/10.1111/arcm.12513
Musselburgh (East Lothian)	5	Moore, J., Rose, A., Anderson, S., Evans, J., Nowell, G., Gröcke, D.R., Pashley, V., Kirby, M. and Montgomery, J. (2020) 'A multi-isotope (C, N, O, Sr, Pb) study of Iron Age and Roman period skeletons from east Edinburgh, Scotland exploring the relationship between decapitation burials and geographical origins', <i>Journal of Archaeological Science: Reports</i> , 29(1), pp. 1-10. Available at: https://doi.org/10.1016/j.jasrep.2019.102075

Portesham G14, Friar Waddon (Dorset)	1	Jay, M., Montgomery, J., Parker Pearson, M. and Sheridan, A. (2019) 'Appendix 2: the post-1500 BC individuals' in M. Parker Pearson, A. Sheridan, M. Jay, A. Chamberlain, M.P. Richards and J. Evans (eds) <i>The Beaker People: isotopes, mobility and diet in prehistoric Britain</i> . Oxford: Oxbow Books, pp. 501-507
Boscombe Down (Wiltshire)	1	Jay, M., Montgomery, J., Parker Pearson, M. and Sheridan, A. (2019) 'Appendix 2: the post-1500 BC individuals' in M. Parker Pearson, A. Sheridan, M. Jay, A. Chamberlain, M.P. Richards and J. Evans (eds) <i>The Beaker People: isotopes, mobility and diet in prehistoric Britain</i> . Oxford: Oxbow Books, pp. 501-507
Rotherley Down flat grave, Berwick St. John (Wiltshire)	1	Jay, M., Montgomery, J., Parker Pearson, M. and Sheridan, A. (2019) 'Appendix 2: the post-1500 BC individuals' in M. Parker Pearson, A. Sheridan, M. Jay, A. Chamberlain, M.P. Richards and J. Evans (eds) <i>The Beaker People: isotopes, mobility and diet in prehistoric Britain</i> . Oxford: Oxbow Books, pp. 501-507
Driffield Terrace (North Yorkshire)	67	Müldner, G., Chenery, C. and Eckardt, H. (2011) 'The 'Headless Romans': multi-isotope investigations of an unusual burial ground from Roman Britain', <i>Journal of Archaeological Science</i> , 38(2), pp. 280-290. Available at: https://doi.org/10.1016/j.jas.2010.09.003
Andover Road, Winchester (Hampshire)	3	Bonsall, L.A. and Pickard, C. (2015) 'Stable isotope and dental pathology evidence for diet in late Roman Winchester, England', <i>Journal of Archaeological Science: Reports</i> , 2(1), pp. 128-140. Available at: https://doi.org/10.1016/j.jasrep.2015.01.009
Hyde Close, Winchester (Hampshire)	2	Bonsall, L.A. and Pickard, C. (2015) 'Stable isotope and dental pathology evidence for diet in late Roman Winchester, England', <i>Journal of Archaeological Science: Reports</i> , 2(1), pp. 128-140. Available at: https://doi.org/10.1016/j.jasrep.2015.01.009
Hyde Street, Winchester (Hampshire)	2	Bonsall, L.A. and Pickard, C. (2015) 'Stable isotope and dental pathology evidence for diet in late Roman Winchester, England', <i>Journal of Archaeological Science: Reports</i> , 2(1), pp. 128-140. Available at: https://doi.org/10.1016/j.jasrep.2015.01.009
Chester Road, Winchester (Hampshire)	8	Bonsall, L.A. and Pickard, C. (2015) 'Stable isotope and dental pathology evidence for diet in late Roman Winchester, England', <i>Journal of Archaeological Science: Reports</i> , 2(1), pp. 128-140. Available at: https://doi.org/10.1016/j.jasrep.2015.01.009
Bainesse Farm, Catterick (North Yorkshire)	21	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018
Catterick Bridge, Catterick (North Yorkshire)	10	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018

Dere Street, Catterick (North Yorkshire)	2	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018
Honeypot Road, Catterick (North Yorkshire)	2	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018
Racecourse, Catterick (North Yorkshire)	2	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018
Queenford Farm, Dorchester-on-Thames (Oxfordshire)	39	Fuller, B.T., Molleson, T.I., Harris, D.A., Gilmour, L.T. and Hedges, R.E.M. (2006) 'Isotopic evidence for breastfeeding and possible adult dietary differences from late/sub-Roman Britain', <i>American Journal of Physical Anthropology</i> , 129(1), pp. 45-54. Available at: https://doi.org/10.1002/ajpa.20244
A14-10 Brampton West (Cambridgeshire)	4	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i> . London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i> , 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059
A14-11 Brampton West (Cambridgeshire)	3	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i> . London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i> , 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059

A14-38 Bar Hill (Cambridgeshire)	3	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059
A14-20 River Great Ouse (Cambridgeshire)	2	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059 Silva, M., Booth, T., Moore, J., Anastasiadou, K., Walker, D., Gilardet, A., Barrington, C., Kelly, M., Williams, M., Henderson, M., Smith, A., Bowsher, D., Montgomery, J. and Skoglund, P. (2024) 'An individual with Sarmatian-related ancestry in Roman Britain', <i>Current Biology</i>, 34(1), pp. 204-212. Available at: https://doi.org/10.1016/j.cub.2023.11.049
A14-28 Fenstanton Gravels (Cambridgeshire)	8	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059
A14-19 River Great Ouse (Cambridgeshire)	1	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059

A14-27 Fenstanton Gravels (Cambridgeshire)	2	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059
A14-7A Brampton West (Cambridgeshire)	3	Moore, J., Montgomery, J. and Rogers, B. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis for 42 individuals from the A14 Cambridge to Huntingdon road development scheme</i>. London: MOLA; Bedfordshire: Headland Archaeology. Wallace, M., Montgomery, J., Rogers, B., Moore, J., Nowell, G., Bowsher, D. and Smith, A. (2024) 'Revealing continuity and sustainability through isotope analysis on the A14 project, Cambridgeshire, UK', <i>Quaternary Science Reviews</i>, 346(1), pp. 1-22. Available at: https://doi.org/10.1016/j.quascirev.2024.109059
Hollow Banks, Scorton (North Yorkshire)	10	Eckardt, H., Müldner, G. and Speed, G. (2015) 'The late Roman field army in northern Britain? Mobility, material culture and multi-isotope analysis at Scorton (N Yorks.)', <i>Britannia</i>, 46(1), pp. 191-223. Available at: https://doi.org/10.1017/S0068113X1500015X
Tubney Wood Quarry (Oxfordshire)	6	Nehlich, O., Fuller, B.T., Jay, M., Mora, A., Nicholson, R.A., Smith, C.I. and Richards, M.P. (2011) 'Application of sulphur isotope ratios to examine weaning patterns and freshwater fish consumption in Roman Oxfordshire, UK', <i>Geochimica et Cosmochimica Acta</i>, 75(17), pp. 4963-4977. Available at: https://doi.org/10.1016/j.gca.2011.06.009
Bainesse, Catterick (North Yorkshire)	5	Cocozza, C., Fernandes, R., Ughi, A., Groß, M. and Alexander, M.M. (2021) 'Investigating infant feeding strategies at Roman Bainesse through Bayesian modelling of incremental dentine isotopic data', <i>International Journal of Osteoarchaeology</i>, 31(1), pp. 429-439. Available at: https://doi.org/10.1002/oa.2962
1-4 Giltspur Street (London)	6	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
St. Bartholomew's Hospital (London)	3	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015

Lant Street (London)	13	Millard, A., Johnson, L. and Gröcke, D.R. (2013) 'Isotopic investigation of diet and mobility' in V. Ridgeway, K. Leary and B. Sudds (eds) <i>Roman burials in Southwark: excavations at 52-56 Lant Street and 56 Southwark Bridge Road</i>. Cambridge: Pre-Construct Archaeology, pp. 65-70 Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Great Dover Street (London)	2	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Spitalfields Market (London)	10	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Courage Brewery (London)	1	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Northgate House (London)	13	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Atlantic House (London)	1	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Mansell Street (London)	3	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Trinity Street (London)	2	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i>, 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015

Red Cross Way (London)	1	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Basinghall Street (London)	1	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Haydon Street (London)	1	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Total number of individuals included in analysis	630	

Table A3.6: Site names and the counties they are located in are presented here for the faunal isotope dataset, alongside the name and number of each species the individual sites have contributed to the dataset. Full bibliographic references for each site are also provided.

<i>Site Name and County</i>	<i>Species (n)</i>	<i>References</i>
Tanner Row (North Yorkshire)	Cattle (6) Sheep/Goat (5) Wood Pigeon (1) Pig (13) Wild Boar (1) Dog (3) Domestic Fowl (7) Wild Duck (1) Swan (2) Goose (2)	Müldner, G. and Richards, M.P. (2007) 'Stable isotope evidence for 1500 years of human diet at the city of York, UK', <i>American Journal of Physical Anthropology</i> , 133(1), pp. 682-697. Available at: https://doi.org/10.1002/ajpa.20561
London Road (Gloucestershire)	Cattle (4) Sheep/Goat (1) Horse (2) Pig (1) Domestic Fowl (1)	Chenery, C., Müldner, G., Evans, J., Eckardt, H. And Lewis, M. (2010) 'Strontium and stable isotope evidence for diet and mobility in Roman Gloucester, UK', <i>Journal of Archaeological Science</i> , 37(), pp. 150-163. Available at: https://doi.org/10.1016/j.jas.2009.09.025
Fordington Bottom (Dorset)	Horse (1)	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022

Maiden Castle Road (Dorset)	Cattle (1) Sheep (1) Dog (1)	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Poundbury Pipeline (Dorset)	Horse (1)	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Lankhills, Winchester (Hampshire)	Cattle (11) Sheep/Goat (4) Horse (7) Pig (2) Dog (3) Fowl (4) Bird (1) Duck (2)	Cummings, C. and Hedges, R.E.M. (2010) 'Carbon and nitrogen stable isotope analyses' in P. Booth, A. Simmonds, A. Boyle, S. Clough, H.E.M. Cool and D. Poore (eds) <i>The Late Roman Cemetery at Lankhills, Winchester</i> . Oxford: Oxford Archaeology, pp. 411-421
Staple Gardens, Winchester (Hampshire)	Cattle (3) Sheep/Goat (10) Pig (10) Fowl (2) Duck (1)	Cummings, C. and Hedges, R.E.M. (2010) 'Carbon and nitrogen stable isotope analyses' in P. Booth, A. Simmonds, A. Boyle, S. Clough, H.E.M. Cool and D. Poore (eds) <i>The Late Roman Cemetery at Lankhills, Winchester</i> . Oxford: Oxford Archaeology, pp. 411-421

Eton College Rowing Course (Buckinghamshire)	Cattle (5) Sheep (5) Horse (6) Pig (4)	Stevens, R.E., Lightfoot, E., Allen, T.G. and Hedges, R.E.M. (2012) 'Palaeodiet at Eton College Rowing Course, Buckinghamshire: isotopic changes in human diet in the Neolithic, Bronze Age, Iron Age and Roman periods throughout the British Isles', <i>Archaeological and Anthropological Sciences</i> , 4(1), pp. 167-184. Available at: https://doi.org/10.1007/s12520-012-0089-0
Yarnton (Oxfordshire)	Cattle (10) Sheep/Goat (9) Horse (7) Pig (8) Dog (5)	Lightfoot, E., O'Connell, T.C., Stevens, R.E., Hamilton, J., Hey, G. and Hedges, R.E.M. (2009) 'An investigation into diet at the site of Yarnton, Oxfordshire, using stable carbon and nitrogen isotopes', <i>Oxford Journal of Archaeology</i> , 28(3), pp. 301-322. Available at: https://doi.org/10.1111/j.1468-0092.2009.00330.x
Musselburgh (East Lothian)	Sheep/Goat (1)	Moore, J., Rose, A., Anderson, S., Evans, J., Nowell, G., Gröcke, D.R., Pashley, V., Kirby, M. and Montgomery, J. (2020) 'A multi-isotope (C, N, O, Sr, Pb) study of Iron Age and Roman period skeletons from east Edinburgh, Scotland exploring the relationship between decapitation burials and geographical origins', <i>Journal of Archaeological Science: Reports</i> , 29(1), pp. 1-10. Available at: https://doi.org/10.1016/j.jasrep.2019.102075
Bainesse Farm, Catterick (North Yorkshire)	Cattle (7) Sheep/Goat (9) Horse (1) Pig (5) Dog (3)	Chenery, C., Eckardt, H. and Müldner, G. (2011) 'Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's Northern frontier', <i>Journal of Archaeological Science</i> , 38(7), pp. 1525-1526. Available at: https://doi.org/10.1016/j.jas.2011.02.018
A14 Brampton West (Cambridgeshire)	Cattle (8) Sheep/Goat (4)	Moore, J., Gron, K.J., Ostrum, B. and Montgomery, J. (2024) <i>A14 Cambridge to Huntingdon improvement scheme specialist analysis report: multi isotope analysis of mixed faunal remains from the A14 Cambridge to Huntingdon road development scheme</i> . London: MOLA; Bedfordshire: Headland Archaeology.

Tubney Wood Quarry (Oxfordshire)	Cattle (3) Sheep/Goat (1)	Nehlich, O., Fuller, B.T., Jay, M., Mora, A., Nicholson, R.A., Smith, C.I. and Richards, M.P. (2011) 'Application of sulphur isotope ratios to examine weaning patterns and freshwater fish consumption in Roman Oxfordshire, UK', <i>Geochimica et Cosmochimica Acta</i> , 75(17), pp. 4963-4977. Available at: https://doi.org/10.1016/j.gca.2011.06.009
Radley, Barrow Hills (Oxfordshire)	Cattle (4) Sheep (2)	Nehlich, O., Fuller, B.T., Jay, M., Mora, A., Nicholson, R.A., Smith, C.I. and Richards, M.P. (2011) 'Application of sulphur isotope ratios to examine weaning patterns and freshwater fish consumption in Roman Oxfordshire, UK', <i>Geochimica et Cosmochimica Acta</i> , 75(17), pp. 4963-4977. Available at: https://doi.org/10.1016/j.gca.2011.06.009
1 Poultry (London)	Cattle (5) Sheep (4) Pig (4) Chicken (1)	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Alington Avenue (Dorset)	Pig (1) Chicken (1)	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Docklands Light Railway (London)	Chicken (4) Cod (1)	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Guildhall Yard (London)	Marine Fish (1)	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015
Plantation House (London)	Eel (1)	Redfern, R., Gowland, R., Millard, A., Powell, L. and Gröcke, D.R. (2018) "From the mouths of babes": A subadult dietary stable isotope perspective on Roman London (Londinium)', <i>Journal of Archaeological Science: Reports</i> , 19(1), pp. 1030-1040. Available at: https://doi.org/10.1016/j.jasrep.2017.08.015

Fishergate (North Yorkshire)	Salmonid (1) Cyprinid (1) Pike (1) Eel (2) Herring (1)	Müldner, G. and Richards, M.P. (2007) 'Stable isotope evidence for 1500 years of human diet at the city of York, UK', <i>American Journal of Physical Anthropology</i> , 133(1), pp. 682-697. Available at: https://doi.org/10.1002/ajpa.20561
Beverley (East Riding of Yorkshire)	Pike (1) Eel (6) Flatfish (2) Gadidae (5) Haddock (2) Herring (3) Ling (1)	Müldner, G. and Richards, M.P. (2005) 'Fast or feast: reconstructing diet in later medieval England by stable isotope analysis', <i>Journal of Archaeological Science</i>, 32(1), pp. 39-48. Available at: https://doi.org/10.1016/j.jas.2004.05.007 Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i>, 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Queens' College, Oxford University (Oxfordshire)	Cyprinid (2) Pike (2)	Nehlich, O., Fuller, B.T., Jay, M., Mora, A., Nicholson, R.A., Smith, C.I. and Richards, M.P. (2011) 'Application of sulphur isotope ratios to examine weaning patterns and freshwater fish consumption in Roman Oxfordshire, UK', <i>Geochimica et Cosmochimica Acta</i> , 75(17), pp. 4963-4977. Available at: https://doi.org/10.1016/j.gca.2011.06.009

No site name (England)	Salmonid (5) Cyprinid (4) Pike (3) Eel (3) Ray (1) Whiting (5)	Redfern, R.C., Hamlin, C. and Athfield, N.B. (2010) 'Temporal changes in diet: a stable isotope analysis of late Iron Age and Roman Dorset, Britain', <i>Journal of Archaeological Science</i> , 37(6), pp. 1149-1160. Available at: https://doi.org/10.1016/j.jas.2009.10.022
Total number of samples included in analysis	296	

Appendix 4: Summary Descriptive Statistic Tables for Analytical Variables

Table A4.1: Summary descriptive statistics for Romano-British dentine, long bone, and rib $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data.

<i>Sample Type</i>	<i>n</i>	<i>Min (‰)</i>	<i>Max (‰)</i>	<i>Range (‰)</i>	<i>Median (‰)</i>	<i>Mean (‰)</i>	<i>SD (‰)</i>	<i>2 SD (‰)</i>
$\delta^{13}\text{C}_{\text{VPDB}}$								
Dentine	101	-21.4	-15.6	5.8	-19.9	-19.7	1.0	2.0
Long Bone	194	-21.5	-15.2	6.3	-19.8	-19.7	0.8	1.6
Rib	400	-22.2	-16.3	5.9	-19.5	-19.5	0.7	1.4
All Bone (Long Bone + Rib)	594	-22.2	-15.2	7.0	-19.6	-19.6	0.7	1.5
$\delta^{15}\text{N}_{\text{AIR}}$								
Dentine	101	8.7	14.8	6.1	11.1	11.2	1.1	2.2
Long Bone	188	6.7	13.1	6.4	10.2	10.0	1.2	2.4
Rib	400	6.8	14.1	7.3	10.3	10.1	1.3	2.6
All Bone (Long Bone + Rib)	588	6.7	14.1	7.4	10.2	10.1	1.3	2.5

Table A4.2: Summary descriptive statistics for Romano-British male and female $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data.

<i>Biological Sex Estimation</i>	<i>n</i>	<i>Min</i> (‰)	<i>Max</i> (‰)	<i>Range</i> (‰)	<i>Median</i> (‰)	<i>Mean</i> (‰)	<i>SD</i> (‰)	<i>2 SD</i> (‰)
$\delta^{13}\text{C}_{\text{VPDB}}$								
Male (M)	315	-21.9	-15.6	6.3	-19.5	-19.5	0.8	1.6
Probable Male (M?)	73	-22.2	-15.2	7.0	-19.6	-19.5	1.0	2.0
All Males (M + M?)	388	-22.2	-15.2	7.0	-19.6	-19.5	0.8	1.7
Female	169	-21.6	-17.6	4.0	-19.6	-19.6	0.7	1.4
Probable Female (F?)	28	-20.9	-19.3	1.6	-20.1	-20.0	0.4	0.9
All Females (F + F?)	197	-21.6	-17.6	4.0	-19.7	-19.7	0.7	1.4
Undetermined	60	-20.9	-16.9	4.0	-19.8	-19.6	0.7	1.4
No Data	50	-21.9	-19.0	3.0	-19.9	-20.0	0.7	1.4
$\delta^{15}\text{N}_{\text{AIR}}$								
Male (M)	311	7.2	14.1	6.9	10.5	10.4	1.2	2.3
Probable Male (M?)	73	6.8	14.8	8.0	10.5	10.3	1.4	2.8
All Males (M + M?)	384	6.8	14.8	8.0	10.5	10.4	1.2	2.4
Female	167	6.7	13.6	6.9	10.0	10.0	1.5	3.0
Probable Female (F?)	28	8.3	12.7	4.4	10.3	10.2	1.2	2.3
All Females (F + F?)	195	6.7	13.6	6.9	10.0	10.0	1.5	2.9
Undetermined	60	6.8	12.5	5.7	10.0	9.9	1.2	2.3
No Data	50	7.9	13.6	5.7	10.8	10.8	1.1	2.3

Table A4.3: Summary descriptive statistics for the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data of the Romano-British geographical region categories.

<i>Geographical Region</i>	<i>n</i>	<i>Min</i> (‰)	<i>Max</i> (‰)	<i>Range</i> (‰)	<i>Median</i> (‰)	<i>Mean</i> (‰)	<i>SD</i> (‰)	<i>2 SD</i> (‰)
$\delta^{13}\text{C}_{\text{VPDB}}$								
South-East Scotland	10	-21.4	-19.2	2.2	-20.7	-20.4	0.9	1.7
North England	213	-21.0	-15.8	5.2	-19.6	-19.6	0.8	1.6
SE Scotland + N England	223	-21.4	-15.8	5.6	-19.6	-19.6	0.8	1.6
East England	45	-21.9	-15.6	6.3	-20.1	-20.3	1.0	2.1
South-East England	247	-22.2	-15.2	7.0	-19.4	-19.4	0.7	1.3
E + SE England	292	-22.2	-15.2	7.0	-19.5	-19.6	0.8	1.6
SW England	180	-21.5	-17.7	3.8	-19.7	-19.7	0.7	1.4
E + SE + SW England	472	-22.2	-15.2	7.0	-19.6	-19.6	0.8	1.5
$\delta^{15}\text{N}_{\text{AIR}}$								
South-East Scotland	10	9.5	11.9	2.4	11.4	10.9	0.8	1.7
North England	213	8.4	14.8	6.4	11.0	11.0	0.8	1.7
SE Scotland + N England	223	8.4	14.8	6.4	11.0	11.0	0.8	1.7
East England	45	8.7	13.6	4.9	11.6	11.6	1.0	2.0
South-East England	242	6.8	13.6	6.8	9.7	9.6	1.3	2.6
E + SE England	287	6.8	13.6	6.8	9.9	9.9	1.4	2.9
SW England	179	6.7	12.6	5.9	9.9	9.9	1.2	2.4
E + SE + SW England	466	6.7	13.6	6.9	9.9	9.9	1.3	2.7

Table A4.4: Summary descriptive statistics for the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data of the Romano-British chronological period categories.

<i>Chronological Period</i>	<i>n</i>	<i>Min</i> (‰)	<i>Max</i> (‰)	<i>Range</i> (‰)	<i>Median</i> (‰)	<i>Mean</i> (‰)	<i>SD</i> (‰)	<i>2 SD</i> (‰)
$\delta^{13}\text{C}_{\text{VPDB}}$								
Early-Mid Romano-British	42	-21.4	-18.5	2.9	-19.8	-19.8	0.8	1.5
Mid Romano-British	52	-20.9	-15.6	5.3	-20.0	-19.9	0.8	1.6
Mid-Late Romano-British	186	-21.9	-15.2	6.7	-19.9	-19.9	0.8	1.6
Late Romano-British	209	-22.2	-16.9	5.3	-19.3	-19.3	0.8	1.6
Late/Sub-Romano-British	41	-20.4	-18.9	1.5	-19.8	-19.7	0.4	0.8
Romano-British (Undefined Date)	165	-21.0	-15.8	5.2	-19.6	-19.6	0.7	1.4
$\delta^{15}\text{N}_{\text{AIR}}$								
Early-Mid Romano-British	41	9.0	13.0	4.0	11.1	11.1	1.0	2.0
Mid Romano-British	52	8.7	12.6	3.9	10.6	10.6	1.0	1.9
Mid-Late Romano-British	181	7.2	14.1	6.9	10.7	10.5	1.2	2.4
Late Romano-British	209	6.7	13.6	6.9	9.5	9.6	1.4	2.8
Late/Sub-Romano-British	41	8.2	11.4	3.2	10.2	10.1	0.9	1.8
Romano-British (Undefined Date)	165	7.8	14.8	7.0	10.7	10.6	1.1	2.3

Table A4.5: Summary descriptive statistics for Romano-British dentine and bone $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data categorised by chronological period for diachronic analysis.

<i>Diachronic Change: Sample Type</i>	<i>n</i>	<i>Min (‰)</i>	<i>Max (‰)</i>	<i>Range (‰)</i>	<i>Median (‰)</i>	<i>Mean (‰)</i>	<i>SD (‰)</i>	<i>2 SD (‰)</i>
$\delta^{13}\text{C}_{\text{VPDB}}$								
Early-Mid Romano-British - Dentine	11	-21.4	-19.2	2.2	-20.2	-20.2	0.7	1.4
Early-Mid Romano-British - All Bone	31	-21.4	-18.5	2.9	-19.6	-19.7	0.7	1.4
Mid Romano-British - Dentine	23	-20.8	-15.6	5.2	-19.9	-19.7	1.0	2.0
Mid Romano-British - All Bone	29	-20.9	-19.2	1.7	-20.0	-20.0	0.5	1.0
Mid-Late Romano-British - Dentine	10	-21.0	-19.5	1.5	-20.0	-20.1	0.5	1.1
Mid-Late Romano-British - All Bone	176	-21.9	-15.2	6.7	-19.9	-19.8	0.8	1.6
Late Romano-British - Dentine	27	-20.4	-16.9	3.5	-19.6	-19.3	1.0	2.0
Late Romano-British - All Bone	182	-22.2	-17.8	4.4	-19.3	-19.3	0.8	1.5
Late/Sub-Romano-British – Dentine	-	-	-	-	-	-	-	-
Late/Sub-Romano-British - All Bone	41	-20.4	-18.9	1.5	-19.8	-19.7	0.4	0.8
Romano-British (Undefined Date) - Dentine	30	-21.0	-15.8	5.2	-20.0	-19.7	1.0	2.0
Romano-British (Undefined Date) - All Bone	135	-20.9	-16.3	4.6	-19.6	-19.5	0.6	1.3
$\delta^{15}\text{N}_{\text{AIR}}$								
Early-Mid Romano-British - Dentine	11	9.7	13.0	3.3	11.4	11.4	1.0	1.9
Early-Mid Romano-British - All Bone	30	9.0	12.7	3.7	11.1	11.0	1.0	2.0
Mid Romano-British - Dentine	23	8.7	12.6	3.9	10.9	10.8	1.1	2.2
Mid Romano-British - All Bone	29	8.7	11.9	3.2	10.4	10.4	0.8	1.7
Mid-Late Romano-British - Dentine	10	9.8	13.5	3.7	11.2	11.3	1.1	2.2
Mid-Late Romano-British - All Bone	171	7.2	14.1	6.9	10.6	10.4	1.2	2.4
Late Romano-British - Dentine	27	9.3	13.6	4.3	11.3	11.4	1.1	2.3
Late Romano-British - All Bone	182	6.7	12.5	5.8	9.2	9.4	1.3	2.5
Late/Sub-Romano-British – Dentine	-	-	-	-	-	-	-	-
Late/Sub-Romano-British - All Bone	41	8.2	11.4	3.2	10.2	10.1	0.9	1.8
Romano-British (Undefined Date) - Dentine	30	9.3	14.8	5.5	11.0	11.2	1.1	2.1
Romano-British (Undefined Date) - All Bone	135	7.8	13.1	5.3	10.5	10.4	1.1	2.2

Table A4.6: Summary descriptive statistics for Romano-British male and female $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data categorised by chronological period for diachronic analysis.

<i>Diachronic Change: Biological Sex Estimation</i>	<i>n</i>	<i>Min (‰)</i>	<i>Max (‰)</i>	<i>Range (‰)</i>	<i>Median (‰)</i>	<i>Mean (‰)</i>	<i>SD (‰)</i>	<i>2 SD (‰)</i>
$\delta^{13}\text{C}_{\text{VPDB}}$								
Early-Mid Romano-British - Males	24	-21.4	-18.5	2.9	-19.6	-19.8	0.9	1.7
Early-Mid Romano-British - Females	9	-20.9	-18.7	2.2	-19.8	-19.7	0.8	1.5
Mid Romano-British - Males	26	-20.5	-15.6	4.9	-19.9	-19.7	0.9	1.8
Mid Romano-British - Females	17	-20.9	-18.9	2.0	-20.3	-20.1	0.7	1.3
Mid-Late Romano-British - Males	104	-21.9	-15.2	6.7	-19.8	-19.8	0.9	1.7
Mid-Late Romano-British - Females	56	-21.2	-17.6	3.6	-20.0	-19.9	0.7	1.4
Late Romano-British - Males	107	-22.2	-16.9	5.3	-19.2	-19.2	0.8	1.6
Late Romano-British - Females	70	-21.6	-17.8	3.8	-19.4	-19.3	0.6	1.3
Late/Sub-Romano-British - Males	16	-20.0	-18.9	1.1	-19.7	-19.5	0.4	0.8
Late/Sub-Romano-British - Females	21	-20.4	-19.2	1.2	-19.8	-19.7	0.3	0.6
Romano-British (Undefined Date) - Males	111	-20.9	-15.8	5.1	-19.6	-19.5	0.8	1.6
Romano-British (Undefined Date) - Females	24	-20.8	-18.7	2.1	-19.8	-19.7	0.6	1.1
$\delta^{15}\text{N}_{\text{AIR}}$								
Early-Mid Romano-British - Males	23	9.5	13.0	3.5	10.6	10.9	0.9	1.9
Early-Mid Romano-British - Females	9	9.7	12.7	3.0	11.5	11.5	0.9	1.7
Mid Romano-British - Males	26	8.7	12.6	3.9	10.6	10.6	1.0	2.0
Mid Romano-British - Females	17	8.7	12.3	3.6	10.7	10.8	0.9	1.8
Mid-Late Romano-British - Males	101	7.2	14.1	6.9	10.8	10.5	1.2	2.5
Mid-Late Romano-British - Females	54	8.3	13.6	5.3	10.6	10.5	1.2	2.5
Late Romano-British - Males	107	6.8	13.0	6.2	9.9	9.8	1.3	2.5
Late Romano-British - Females	70	6.7	13.2	6.5	8.7	9.1	1.4	2.9
Late/Sub-Romano-British - Males	16	9.7	11.4	1.7	10.7	10.6	0.5	1.1
Late/Sub-Romano-British - Females	21	8.2	11.1	2.9	9.8	9.9	0.9	1.8
Romano-British (Undefined Date) - Males	111	7.8	14.8	7.0	10.7	10.7	1.1	2.2
Romano-British (Undefined Date) - Females	24	7.9	13.1	5.2	10.7	10.6	1.4	2.7

Table A4.7: Summary descriptive statistics for the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data of the Romano-British geographical region categories, divided into chronological periods for diachronic analysis.

<i>Diachronic Change: Geographic Region</i>	<i>n</i>	<i>Min</i> (‰)	<i>Max</i> (‰)	<i>Range</i> (‰)	<i>Median</i> (‰)	<i>Mean</i> (‰)	<i>SD</i> (‰)	<i>2 SD</i> (‰)
$\delta^{13}\text{C}_{\text{VPDB}}$								
Early-Mid Romano-British - SE Scot + N Eng	10	-21.4	-19.2	2.2	-20.7	-20.4	0.9	1.7
Early-Mid Romano-British - E + SE + SW Eng	32	-20.9	-18.5	2.4	-19.8	-19.6	0.6	1.2
Mid Romano-British - SE Scot + N Eng	31	-20.8	-19.2	1.6	-20.2	-20.0	0.5	0.9
Mid Romano-British - E + SE + SW Eng	21	-20.9	-15.6	5.3	-19.7	-19.6	1.1	2.1
Mid-Late Romano-British - SE Scot + N Eng	63	-21.0	-17.1	3.9	-19.5	-19.6	0.6	1.3
Mid-Late Romano-British - E + SE + SW Eng	123	-21.9	-15.2	6.7	-20.1	-20.0	0.8	1.6
Late Romano-British - SE Scot + N Eng	41	-20.8	-16.9	3.9	-19.5	-19.3	0.9	1.9
Late Romano-British - E + SE + SW Eng	168	-22.2	-17.8	4.4	-19.3	-19.3	0.8	1.5
Late/Sub-Romano-British - SE Scot + N Eng	-	-	-	-	-	-	-	-
Late/Sub-Romano-British - E + SE + SW Eng	41	-20.4	-18.9	1.5	-19.8	-19.7	0.4	0.8
Romano-British (Undefined Date) - SE Scot + N Eng	78	-20.9	-15.8	5.1	-19.6	-19.5	0.9	1.7
Romano-British (Undefined Date) - E + SE + SW Eng	87	-21.0	-17.7	3.3	-19.6	-19.6	0.5	1.1
$\delta^{15}\text{N}_{\text{AIR}}$								
Early-Mid Romano-British - SE Scot + N Eng	10	9.5	11.9	2.4	11.4	10.9	0.8	1.7
Early-Mid Romano-British - E + SE + SW Eng	31	9.0	13.0	4.0	11.1	11.2	1.0	2.1
Mid Romano-British - SE Scot + N Eng	31	9.5	11.9	2.4	10.5	10.6	0.7	1.3

Table A4.7 (continued): Summary descriptive statistics for the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ data of the Romano-British geographical region categories, divided into chronological periods for diachronic analysis.

Mid Romano-British - E + SE + SW Eng	21	8.7	12.6	3.9	10.7	10.6	1.3	2.6
Mid-Late Romano-British - SE Scot + N Eng	63	9.2	14.1	4.9	11.2	11.2	0.8	1.5
Mid-Late Romano-British - E + SE + SW Eng	118	7.2	13.6	6.4	10.1	10.1	1.2	2.5
Late Romano-British - SE Scot + N Eng	41	8.4	13.2	4.8	10.8	10.9	0.9	1.8
Late Romano-British - E + SE + SW Eng	168	6.7	13.6	6.9	9.1	9.3	1.4	2.7
Late/Sub-Romano-British - SE Scot + N Eng	-	-	-	-	-	-	-	-
Late/Sub-Romano-British - E + SE + SW Eng	41	8.2	11.4	3.2	10.2	10.1	0.9	1.8
Romano-British (Undefined Date) - SE Scot + N Eng	78	9.3	14.8	5.5	11.0	11.0	0.9	1.7
Romano-British (Undefined Date) - E + SE + SW Eng	87	7.8	13.1	5.3	10.2	10.2	1.2	2.4

Appendix 5: Outliers

Table A5: Summary of identified outliers and their dietary interpretations from the source publication, alongside relevant contextual information.

<i>Outlier</i>	<i>Original Dietary Interpretation</i>	<i>Contextual Information</i>
6DRIF-18	High $\delta^{15}\text{N}$ values with a “terrestrial” $\delta^{13}\text{C}$ value = non-local to Britain from more arid region OR significant freshwater resource consumption	• Driffield Terrace, N.Yorkshire • Probable male • Urban site (military/civilian association) • Romano-British <i>(Müldner et al., 2011)</i>
YTD516	Very high $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values = substantial marine resource consumption	• Trentholme Drive, N.Yorkshire • Male • Urban site • Mid-Late Romano-British <i>(Müldner and Richards, 2007)</i>
LTU03-10	Not identified as an outlier	• Lant Street, London • Probable male • Urban site (military/civilian association) • Late Romano-British <i>(Redfern et al., 2018)</i>
SK12671	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant)	• Gravesend, Kent • Probable male • Rural site • Mid-Late Romano-British <i>(Pollard et al., 2018)</i>
SK203645	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant) – mixed C_3/C_4 diet	• A14-20 River Great Ouse, Cambridgeshire • Male • Rural site • Mid Roman <i>(Moore et al., 2024; Wallace et al., 2024; Silva et al., 2024)</i>
6DRIF-9	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant) – mixed C_3/C_4 diet Dentine has higher $\delta^{13}\text{C}$ than long bone = possible move after childhood to C_3 environment	• Driffield Terrace, N.Yorkshire • Probable male • Urban site (military/civilian association) • Romano-British <i>(Müldner et al., 2011)</i>
3DRIF-10	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant) – mixed C_3/C_4 diet	• Driffield Terrace, N.Yorkshire • Male • Urban site (military/civilian association) • Romano-British <i>(Müldner et al., 2011)</i>
HOLLOW BANKS SK1	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant) – mixed C_3/C_4 diet	• Hollow Banks, Scorton, N.Yorkshire • Undetermined sex • Sub-urban site (military association) • Late Romano-British <i>(Eckardt et al., 2015)</i>
HOLLOW BANKS SK2	Very high $\delta^{13}\text{C}$ = significant C_4 protein consumption (possible migrant) – mixed C_3/C_4 diet	• Hollow Banks, Scorton, N.Yorkshire • Male • Sub-urban site (military association) • Late Romano-British <i>(Eckardt et al., 2015)</i>