Matt Sponheimer

List of Publications by Year
in descending order

116 papers	8,512 citations	38742 50 h-index	45317 90 g-index
123 all docs	123 docs citations	123 times ranked	5136 citing authors

#	Article	IF	Citations
1	Carbon isotope fractionation between diet, breath CO2, and bioapatite in different mammals. Journal of Archaeological Science, 2005, 32, 1459-1470.	2.4	484
2	The effect of dietary protein quality on nitrogen isotope discrimination in mammals and birds. Oecologia, 2005, 144, 534-540.	2.0	358
3	Nitrogen isotopes in mammalian herbivores: hair ?15N values from a controlled feeding study. International Journal of Osteoarchaeology, 2003, 13, 80-87.	1.2	321
4	Isotopic Evidence for the Diet of an Early Hominid, Australopithecus africanus. Science, 1999, 283, 368-370.	12.6	296
5	Diet of <i>Paranthropus boisei</i> in the early Pleistocene of East Africa. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9337-9341.	7.1	263
6	Three case studies used to reassess the reliability of fossil bone and enamel isotope signals for paleodietary studies. Journal of Anthropological Archaeology, 2003, 22, 208-216.	1.6	261
7	Oxygen Isotopes in Enamel Carbonate and their Ecological Significance. Journal of Archaeological Science, 1999, 26, 723-728.	2.4	250
8	An experimental study of carbon-isotope fractionation between diet, hair, and feces of mammalian herbivores. Canadian Journal of Zoology, 2003, 81, 871-876.	1.0	237
9	Isotopic evidence of early hominin diets. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10513-10518.	7.1	225
10	Turnover of carbon isotopes in tail hair and breath CO 2 of horses fed an isotopically varied diet. Oecologia, 2004, 139, 11-22.	2.0	222
11	DIETS OF SOUTHERN AFRICAN BOVIDAE: STABLE ISOTOPE EVIDENCE. Journal of Mammalogy, 2003, 84, 471-479.	1.3	218
12	Sulphur isotopes in palaeodietary studies: a review and results from a controlled feeding experiment. International Journal of Osteoarchaeology, 2003, 13, 37-45.	1.2	216
13	The Diets of Early Hominins. Science, 2011, 334, 190-193.	12.6	211
14	Isotopic Evidence for Dietary Variability in the Early Hominin Paranthropus robustus. Science, 2006, 314, 980-982.	12.6	206
15	Hominins, sedges, and termites: new carbon isotope data from the Sterkfontein valley and Kruger National Park. Journal of Human Evolution, 2005, 48, 301-312.	2.6	178
16	Strontium isotope evidence for landscape use by early hominins. Nature, 2011, 474, 76-78.	27.8	175
17	Alteration of Enamel Carbonate Environments during Fossilization. Journal of Archaeological Science, 1999, 26, 143-150.	2.4	167
18	The diet of Australopithecus sediba. Nature, 2012, 487, 90-93.	27.8	165

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19	Taxonomic, anatomical, and spatio-temporal variations in the stable carbon and nitrogen isotopic compositions of plants from an African savanna. Journal of Archaeological Science, 2005, 32, 1757-1772.	2.4	160
20	Diets of savanna ungulates from stable carbon isotope composition of faeces. Journal of Zoology, 2007, 273, 21-29.	1.7	156
21	Do â€œsavannaâ€• chimpanzees consume C4 resources?. Journal of Human Evolution, 2006, 51, 128-133.	2.6	150
22	Combining isotopic and ecomorphological data to refine bovid paleodietary reconstruction: a case study from the Makapansgat Limeworks hominin locality. Journal of Human Evolution, 1999, 36, 705-718.	2.6	129
23	Inter- and intrahabitat dietary variability of chacma baboons (Papio ursinus) in South African savannas based on fecal Î´13C, Î´15N, and %N. American Journal of Physical Anthropology, 2006, 129, 204-214.	2.1	120
24	Dental microwear and stable isotopes inform the paleoecology of extinct hominins. American Journal of Physical Anthropology, 2012, 148, 285-317.	2.1	112
25	The oxygen isotope composition of mammalian enamel carbonate from Morea Estate, South Africa. Oecologia, 2001, 126, 153-157.	2.0	111
26	Contributions of biogeochemistry to understanding hominin dietary ecology. American Journal of Physical Anthropology, 2006, 131, 131-148.	2.1	110
27	Strontium isotope ratios (⁸⁷Sr/⁸⁶Sr) of tooth enamel: a comparison of solution and laser ablation multicollector inductively coupled plasma mass spectrometry methods. Rapid Communications in Mass Spectrometry, 2008, 22, 3187-3194.	1.5	110
28	An experimental study of nitrogen flux in llamas: is 14N preferentially excreted?. Journal of Archaeological Science, 2003, 30, 1649-1655.	2.4	109
29	ELEPHANT (LOXODONTA AFRICANA) DIETS IN KRUGER NATIONAL PARK, SOUTH AFRICA: SPATIAL AND LANDSCAPE DIFFERENCES. Journal of Mammalogy, 2006, 87, 27-34.	1.3	106
30	Enamel diagenesis at South African Australopith sites: Implications for paleoecological reconstruction with trace elements. Geochimica Et Cosmochimica Acta, 2006, 70, 1644-1654.	3.9	106
31	Isotopic evidence for an early shift to C ₄ resources by Pliocene hominins in Chad. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20369-20372.	7.1	106
32	Sr/Ca and early hominin diets revisited: new data from modern and fossil tooth enamel. Journal of Human Evolution, 2005, 48, 147-156.	2.6	100
33	Stable isotopes in fossil hominin tooth enamel suggest a fundamental dietary shift in the Pliocene. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 3389-3396.	4.0	97
34	Diet of <i>Australopithecus afarensis</i> from the Pliocene Hadar Formation, Ethiopia. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10495-10500.	7.1	97
35	Turnover of stable carbon isotopes in the muscle, liver, and breath CO2 of alpacas (Lama pacos). Rapid Communications in Mass Spectrometry, 2006, 20, 1395-1399.	1.5	90
36	Significance of diet type and diet quality for ecological diversity of African ungulates. Journal of Animal Ecology, 2007, 76, 526-537.	2.8	88

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37	Stable isotope characterization of mammalian predatorâ€“prey relationships in a South African savanna. European Journal of Wildlife Research, 2007, 53, 161-170.	1.4	86
38	Intraâ€tooth stable isotope analysis of dentine: A step toward addressing selective mortality in the reconstruction of life history in the archaeological record. American Journal of Physical Anthropology, 2014, 155, 281-293.	2.1	85
39	Tracking changing environments using stable carbon isotopes in fossil tooth enamel: an example from the South African hominin sites. Journal of Human Evolution, 2007, 53, 595-601.	2.6	84
40	Nutritional content of savanna plant foods: implications for browser/grazer models of ungulate diversification. European Journal of Wildlife Research, 2007, 53, 100-111.	1.4	82
41	Intraspecific variation in hair Î´13C and Î´15N values of ring-tailed lemurs (Lemur catta) with known individual histories, behavior, and feeding ecology. American Journal of Physical Anthropology, 2007, 133, 978-985.	2.1	73
42	Microwear evidence for Plioâ€“Pleistocene bovid diets from Makapansgat Limeworks Cave, South Africa. Palaeogeography, Palaeoclimatology, Palaeoecology, 2006, 241, 301-319.	2.3	71
43	Using carbon isotopes to track dietary change in modern, historical, and ancient primates. American Journal of Physical Anthropology, 2009, 140, 661-670.	2.1	69
44	What Insights Can Baboon Feeding Ecology Provide for Early Hominin Niche Differentiation?. International Journal of Primatology, 2008, 29, 757-772.	1.9	68
45	Digestion and passage rates of grass hays by llamas, alpacas, goats, rabbits, and horses. Small Ruminant Research, 2003, 48, 149-154.	1.2	67
46	Strontium isotope ratios in fossil teeth from South Africa: assessing laser ablation MC-ICP-MS analysis and the extent of diagenesis. Journal of Archaeological Science, 2010, 37, 1437-1446.	2.4	65
47	What do stable isotopes tell us about hominid dietary and ecological niches in the pliocene?. International Journal of Osteoarchaeology, 2003, 13, 104-113.	1.2	63
48	Craniofacial biomechanics and functional and dietary inferences in hominin paleontology. Journal of Human Evolution, 2010, 58, 293-308.	2.6	61
49	Indications of habitat association of Australopithecus robustus in the Bloubank Valley, South Africa. Journal of Human Evolution, 2008, 55, 1015-1030.	2.6	58
50	Landscape-scale feeding patterns of African elephant inferred from carbon isotope analysis of feces. Oecologia, 2011, 165, 89-99.	2.0	52
51	The stable isotope ecology of <i>Pan</i> in Uganda and beyond. American Journal of Primatology, 2016, 78, 1070-1085.	1.7	51
52	Functional differentiation of African grazing ruminants: an example of specialized adaptations to very small changes in diet. Biological Journal of the Linnean Society, 0, 94, 755-764.	1.6	49
53	Using the Stable Carbon and Nitrogen Isotope Compositions of Vervet Monkeys (Chlorocebus) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.5	49
54	Differential resource utilization by extant great apes and australopithecines: towards solving the C4 conundrum. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2003, 136, 27-34.	1.8	48

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55	When animals are not quite what they eat: diet digestibility influences¹³C-incorporation rates and apparent discrimination in a mixed-feeding herbivore. Canadian Journal of Zoology, 2011, 89, 453-465.	1.0	45
56	Stable Isotope Analysis in Primatology: A Critical Review. American Journal of Primatology, 2012, 74, 969-989.	1.7	42
57	Stable isotope series from elephant ivory reveal lifetime histories of a true dietary generalist. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2433-2441.	2.6	39
58	Saving Old Bones: a non-destructive method for bone collagen prescreening. Scientific Reports, 2019, 9, 13928.	3.3	38
59	Stable carbon isotope reconstruction of ungulate diet changes through the seasonal cycle. South African Journal of Wildlife Research, 2007, 37, 117-125.	1.4	35
60	The confounding effects of source isotopic heterogeneity on consumerâ€“diet and tissueâ€“tissue stable isotope relationships. Oecologia, 2012, 169, 939-953.	2.0	35
61	Dietary flexibility of Australopithecus afarensis in the face of paleoecological change during the middle Pliocene: Faunal evidence from Hadar, Ethiopia. Journal of Human Evolution, 2016, 99, 93-106.	2.6	32
62	Isotopic evidence for the timing of the dietary shift toward C ₄ foods in eastern African <i>Paranthropus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21978-21984.	7.1	28
63	Impacts of Plant-Based Foods in Ancestral Hominin Diets on the Metabolism and Function of Gut Microbiota <i>In Vitro</i>. MBio, 2014, 5, e00853-14.	4.1	27
64	Strontium isotope analysis of curved tooth enamel surfaces by laser-ablation multi-collector ICP-MS. Palaeogeography, Palaeoclimatology, Palaeoecology, 2014, 416, 142-149.	2.3	26
65	Stable isotope evidence for trophic niche partitioning in a South African savanna rodent community. Environmental Epigenetics, 2015, 61, 397-411.	1.8	26
66	Plant stable isotope composition across habitat gradients in a semiâ€arid savanna: implications for environmental reconstruction. Journal of Quaternary Science, 2013, 28, 301-310.	2.1	24
67	Tracking the fate of digesta 13C and 15N compositions along the ruminant gastrointestinal tract: Does digestion influence the relationship between diet and faeces?. European Journal of Wildlife Research, 2012, 58, 303-313.	1.4	22
68	Dietary trends in herbivores from the Shungura Formation, southwestern Ethiopia. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21921-21927.	7.1	22
69	Grass leaves as potential hominin dietary resources. Journal of Human Evolution, 2018, 117, 44-52.	2.6	21
70	Stable isotope turnover and variability in tail hairs of captive and free-ranging African elephants (<i>Loxodonta africana</i>) reveal dietary niche differences within populations. Canadian Journal of Zoology, 2013, 91, 124-134.	1.0	20
71	Within-Population Isotopic Niche Variability in Savanna Mammals: Disparity between Carnivores and Herbivores. Frontiers in Ecology and Evolution, 2016, 4, .	2.2	20
72	Nanomechanical properties of modern and fossil bone. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 289, 25-32.	2.3	19

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73	Stable isotopes (carbon, nitrogen, sulfur), diet, and anthropometry in urban Colombian women: Investigating socioeconomic differences. American Journal of Human Biology, 2015, 27, 207-218.	1.6	18
74	Digestibility and nitrogen retention in llamas and goats fed alfalfa, C3 grass, and C4 grass hays. Small Ruminant Research, 2006, 64, 162-168.	1.2	17
75	An Examination of Triassic Cynodont Tooth Enamel Chemistry Using Fourier Transform Infrared Spectroscopy. Calcified Tissue International, 2004, 74, 162-169.	3.1	16
76	Increased Dietary Breadth in Early Hominin Evolution: Revisiting Arguments and Evidence with a Focus on Biogeochemical Contributions. Vertebrate Paleobiology and Paleoanthropology, 2009, , 229-240.	0.5	15
77	Stable isotope evidence for impala <i>Aepyceros melampus</i> diets at Akagera National Park, Rwanda. African Journal of Ecology, 2009, 47, 490-501.	0.9	14
78	Hominin Ecology from Hard-Tissue Biogeochemistry. , 2013, , 281-324.		14
79	Stable carbon isotope ecology of small mammals from the Sterkfontein Valley: Implications for habitat reconstruction. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 485, 57-67.	2.3	14
80	Nanoindentation of lemur enamel: An ecological investigation of mechanical property variations within and between sympatric species. American Journal of Physical Anthropology, 2012, 148, 178-190.	2.1	13
81	Advances in primate stable isotope ecologyâ€"Achievements and future prospects. American Journal of Primatology, 2016, 78, 995-1003.	1.7	13
82	Intrataxonomic trends in herbivore enamel Î´13C are decoupled from ecosystem woody cover. Nature Ecology and Evolution, 2021, 5, 995-1002.	7.8	12
83	A 41,500Âyear-old decorated ivory pendant from Stajnia Cave (Poland). Scientific Reports, 2021, 11, 22078.	3.3	12
84	Influences on plant nutritional variation and their potential effects on hominin diet selection. Review of Palaeobotany and Palynology, 2019, 261, 18-30.	1.5	11
85	18 Hominin Paleodiets: The Contribution of Stable Isotopes. , 2007, , 555-585.		11
86	Stable isotope evidence for nutritional stress, competition, and loss of functional habitat as factors limiting recovery of rare antelope in southern Africa. Journal of Arid Environments, 2009, 73, 449-457.	2.4	10
87	Seasonal and habitat effects on the nutritional properties of savanna vegetation: Potential implications for early hominin dietary ecology. Journal of Human Evolution, 2019, 133, 99-107.	2.6	10
88	Bulk and intraâ€tooth enamel stable isotopes of waterbuck <i>Kobus ellipsiprymnus</i> from Queen Elizabeth National Park, Uganda. African Journal of Ecology, 2008, 46, 697-701.	0.9	8
89	Small mammal insectivore stable carbon isotope compositions as habitat proxies in a South African savanna ecosystem. Journal of Archaeological Science: Reports, 2016, 8, 335-345.	0.5	8
90	Direct radiocarbon dates of mid Upper Palaeolithic human remains from DolnÃ-VÄ›stonice II and Pavlov I, Czech Republic. Journal of Archaeological Science: Reports, 2019, 27, 102000.	0.5	7

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91	Some Ruminations on Australopith Diets. Vertebrate Paleobiology and Paleoanthropology, 2013, , 225-233.	0.5	6
92	Dietary Evolution: The Panda Paradox. Current Biology, 2019, 29, R417-R419.	3.9	6
93	Stable isotope data from bonobo (<i>Pan paniscus</i>) faecal samples from the Lomako Forest Reserve, Democratic Republic of the Congo. African Journal of Ecology, 2019, 57, 437-442.	0.9	6
94	Biogeochemical Evidence for the Environments of Early Homo in South Africa. Vertebrate Paleobiology and Paleoanthropology, 2009, , 185-194.	0.5	6
95	The Reaction Progress Variable and Isotope Turnover in Biological Systems. Journal of Nano Education (Print), 2007, , 163-171.	0.3	5
96	â€˜Remoteâ€™ behavioural ecology: do megaherbivores consume vegetation in proportion to its presence in the landscape?. PeerJ, 2020, 8, e8622.	2.0	5
97	Stable isotope characterisation of mammalian predatorâ€“prey relationships in a South African savanna. European Journal of Wildlife Research, 2007, 53, 161.	1.4	5
98	The ecomorphology of southern African rodent incisors: Potential applications to the hominin fossil record. PLoS ONE, 2019, 14, e0205476.	2.5	4
99	The Reaction Progress Variable and Isotope Turnover in Biological Systems. , 2007, , 163-171.		4
100	Problems with Paranthropus. Quaternary International, 2022, , .	1.5	4
101	Reply to Godfrey et al.: Outside the box. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E743-E743.	7.1	3
102	Reply to Fontes-Villalba et al.: On a reluctance to conjecture about animal food consumption. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4056.	7.1	3
103	Stable carbon isotope and molar microwear variability of South African australopiths in relation to paleohabitats and taxonomy. , 2020, , 187-223.		3
104	9 Contribution of Stable Light Isotopes to Paleoenvironmental Reconstruction. , 2007, , 289-310.		3
105	Conservation: New Potential for Stable Isotope Analysis?. Developments in Primatology, 2016, , 399-414.	0.1	2
106	Evidence for differences in activity between socioeconomic groups at <scp>K</scp>ulubnarti, <scp>N</scp>ubia (550â€“800 <scp>CE</scp>), from osseous modifications of the proximal femur. International Journal of Osteoarchaeology, 2018, 28, 735-744.	1.2	2
107	Hominin Paleodiets: The Contribution of Stable Isotopes. , 2015, , 671-701.		2
108	TOOTHFIR: Presenting a dataset and a preliminary meta-analysis of Fourier Transform Infra-red Spectroscopy indices from archaeological and palaeontological tooth enamel. Quaternary International, 2022, , .	1.5	2

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109	Contribution of Stable Light Isotopes to Paleoenvironmental Reconstruction. , 2015, , 441-464.		1
110	Animal palaeocommunity variability and habitat preference of the robust australopiths in South Africa. , 0, , 451-470.		0
111	A Brief Update on Developments in Early Hominin Biogeochemistry. ACS Symposium Series, 2013, , 295-307.	0.5	0
112	Tooth Enamel Biogeochemistry and Early Hominin Diets. , 0, , .		0
113	Vervet Monkeys (Chlorocebus pygerthrus), Chimpanzees (Pan troglodytes), and Humans (Homo) Tj ETQq1 1 0.784314 rgBT /Overlock 1		0
114	Fossil Primates from Flooded Habitats. , 2019, , 10-14.		0
115	Hominin Paleodiets: The Contribution of Stable Isotopes. , 2013, , 1-27.		0
116	Contribution of Stable Light Isotopes to Paleoenvironmental Reconstruction. , 2013, , 1-22.		0