

# Mikael Fortelius

## List of Publications by Year in descending order

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96  
papers

7,058  
citations

87888

38  
h-index

60623

81  
g-index

100  
all docs

100  
docs citations

100  
times ranked

7396  
citing authors

#	ARTICLE	IF	CITATIONS
1	Approaching a state shift in Earth's biosphere. <i>Nature</i> , 2012, 486, 52-58.	27.8	1,518
2	Functional Characterization of Ungulate Molars Using the Abrasion-Attrition Wear Gradient: A New Method for Reconstructing Paleodiets. <i>American Museum Novitates</i> , 2000, 3301, 1-36.	0.6	455
3	ON THE MEANS WHEREBY MAMMALS ACHIEVE INCREASED FUNCTIONAL DURABILITY OF THEIR DENTITIONS, WITH SPECIAL REFERENCE TO LIMITING FACTORS. <i>Biological Reviews</i> , 1988, 63, 197-230.	10.4	365
4	High-level similarity of dentitions in carnivorans and rodents. <i>Nature</i> , 2007, 445, 78-81.	27.8	336
5	Merging paleobiology with conservation biology to guide the future of terrestrial ecosystems. <i>Science</i> , 2017, 355, .	12.6	260
6	The Evolution of Maximum Body Size of Terrestrial Mammals. <i>Science</i> , 2010, 330, 1216-1219.	12.6	252
7	Late Miocene and Pliocene large land mammals and climatic changes in Eurasia. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2006, 238, 219-227.	2.3	225
8	Adaptive radiation of multituberculate mammals before the extinction of dinosaurs. <i>Nature</i> , 2012, 483, 457-460.	27.8	221
9	Out of Tibet: Pliocene Woolly Rhino Suggests High-Plateau Origin of Ice Age Megaherbivores. <i>Science</i> , 2011, 333, 1285-1288.	12.6	164
10	Partitioning taxon, phylogenetic and functional beta diversity into replacement and richness difference components. <i>Journal of Biogeography</i> , 2014, 41, 749-761.	3.0	162
11	Strengthened East Asian summer monsoons during a period of high-latitude warmth? Isotopic evidence from Mio-Pliocene fossil mammals and soil carbonates from northern China. <i>Earth and Planetary Science Letters</i> , 2009, 277, 443-452.	4.4	161
12	Distribution history and climatic controls of the Late Miocene Pikermian chronofauna. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11867-11871.	7.1	156
13	Hypsodonty and tooth facet development in relation to diet and habitat in herbivorous ungulates: implications for understanding tooth wear. <i>Mammal Review</i> , 2013, 43, 34-46.	4.8	148
14	Common mammals drive the evolutionary increase of hypsodonty in the Neogene. <i>Nature</i> , 2002, 417, 538-540.	27.8	133
15	Differential mesowear in occluding upper and lower molars: Opening mesowear analysis for lower molars and premolars in hypsodont horses. <i>Journal of Morphology</i> , 2003, 258, 67-83.	1.2	125
16	The maximum rate of mammal evolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 4187-4190.	7.1	107
17	Development, structure and function of rhinoceros enamel. <i>Zoological Journal of the Linnean Society</i> , 1986, 87, 181-214.	2.3	95
18	Asynchronous responses of East Asian and Indian summer monsoons to mountain uplift shown by regional climate modelling experiments. <i>Climate Dynamics</i> , 2013, 40, 1531-1549.	3.8	95

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19	Lower Extinction Risk in Sleep-Deprived Mammals. <i>American Naturalist</i> , 2009, 173, 264-272.	2.1	93
20	Evolution of Neogene Mammals in Eurasia: Environmental Forcing and Biotic Interactions. <i>Annual Review of Earth and Planetary Sciences</i> , 2014, 42, 579-604.	11.0	91
21	Growth and wear of incisor and cheek teeth in domestic rabbits ( <i>Oryctolagus cuniculus</i> ) fed diets of different abrasiveness. <i>Journal of Experimental Zoology</i> , 2014, 321, 283-298.	1.2	85
22	Ecometrics: The traits that bind the past and present together. <i>Integrative Zoology</i> , 2010, 5, 88-101.	2.6	83
23	History matters: ecometrics and integrative climate change biology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 1131-1140.	2.6	81
24	Significant mid-latitude aridity in the middle Miocene of East Asia. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2009, 279, 201-206.	2.3	80
25	An ecometric analysis of the fossil mammal record of the Turkana Basin. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016, 371, 20150232.	4.0	80
26	A new specimen of <i>Ankarapithecus meteai</i> from the Sinap Formation of central Anatolia. <i>Nature</i> , 1996, 382, 349-351.	27.8	78
27	The rise and fall of the Old World savannah fauna and the origins of the African savannah biome. <i>Nature Ecology and Evolution</i> , 2018, 2, 241-246.	7.8	67
28	A new magnetostratigraphic framework for late Neogene Hipparion Red Clay in the eastern Loess Plateau of China. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2008, 268, 47-57.	2.3	65
29	Analysis of heat transport mechanisms from a Late Miocene model experiment with a fully-coupled atmosphere-ocean general circulation model. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2011, 304, 337-350.	2.3	65
30	Dental functional traits of mammals resolve productivity in terrestrial ecosystems past and present. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 2793-2799.	2.6	64
31	The largest land mammal ever imagined. <i>Zoological Journal of the Linnean Society</i> , 1993, 108, 85-101.	2.3	62
32	Maintenance of Trophic Structure in Fossil Mammal Communities: Site Occupancy and Taxon Resilience. <i>American Naturalist</i> , 2004, 164, 614-624.	2.1	60
33	Reconciling taxon senescence with the Red Queen's hypothesis. <i>Nature</i> , 2017, 552, 92-95.	27.8	56
34	Introducing the Scientific Consensus on Maintaining Humanity's Life Support Systems in the 21st Century: Information for Policy Makers. <i>Infrastructure Asset Management</i> , 2014, 1, 78-109.	1.6	55
35	Functional evolution of the cheek tooth pattern and chewing direction in Tertiary horses. <i>Paleobiology</i> , 1984, 10, 439-452.	2.0	51
36	Patterns of maximum body size evolution in Cenozoic land mammals: eco-evolutionary processes and abiotic forcing. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20132049.	2.6	48

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37	Mechanical modelling of tooth wear. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160399.	3.4	45
38	Seriation in Paleontological Data Using Markov Chain Monte Carlo Methods. <i>PLoS Computational Biology</i> , 2006, 2, e6.	3.2	41
39	From card catalogs to computers: databases in vertebrate paleontology. <i>Journal of Vertebrate Paleontology</i> , 2013, 33, 13-28.	1.0	41
40	A New Tooth Wear-Based Dietary Analysis Method for Proboscidea (Mammalia). <i>Journal of Vertebrate Paleontology</i> , 2015, 35, e918546.	1.0	40
41	Paleoecology of the Serengeti during the Oldowan-Acheulean transition at Olduvai Gorge, Tanzania: The mammal and fish evidence. <i>Journal of Human Evolution</i> , 2018, 120, 48-75.	2.6	36
42	Magnetostratigraphy and paleoecology of the hominid-bearing locality Atorakyerler, Tuglu Formation (Aankiri Basin, Central Anatolia). <i>Journal of Vertebrate Paleontology</i> , 2016, 36, e1071710.	1.0	34
43	Herbivore teeth predict climatic limits in Kenyan ecosystems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12751-12756.	7.1	31
44	Toward a holistic understanding of pastoralism. <i>One Earth</i> , 2021, 4, 651-665.	6.8	31
45	Co-occurrence of pliopithecoid and hominoid primates in the fossil record: An ecometric analysis. <i>Journal of Human Evolution</i> , 2015, 84, 25-41.	2.6	28
46	Dental topography and diets of platyrrhine primates. <i>Historical Biology</i> , 2018, 30, 64-75.	1.4	28
47	Pliocene to Middle Pleistocene climate history in the Guadix-Baza Basin, and the environmental conditions of early Homo dispersal in Europe. <i>Quaternary Science Reviews</i> , 2021, 268, 107132.	3.0	28
48	Effects of allometry, productivity and lifestyle on rates and limits of body size evolution. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20131007.	2.6	26
49	The morphology and paleobiological significance of the horns of <i>Coelodonta antiquitatis</i> (Mammalia: Rhinocerotidae). <i>Journal of Vertebrate Paleontology</i> , 1983, 3, 125-135.	1.0	21
50	The aspect Bernoulli model: multiple causes of presences and absences. <i>Pattern Analysis and Applications</i> , 2009, 12, 55-78.	4.6	21
51	Convergence in the distribution patterns of Europe's plants and mammals is due to environmental forcing. <i>Journal of Biogeography</i> , 2012, 39, 1633-1644.	3.0	20
52	New stratigraphically constrained palaeoenvironmental reconstructions for the first human settlement in Western Europe: The Early Pleistocene herpetofaunal assemblages from Barranco Len and Fuente Nueva 3 (Granada, SE Spain). <i>Quaternary Science Reviews</i> , 2020, 243, 106466.	3.0	20
53	An Oasis in the Desert? History of Endemism and Climate in the Late Neogene of North China. <i>Palaeontographica, Abteilung A: Palaozoologie - Stratigraphie</i> , 2006, 277, 131-141.	2.1	20
54	Translating science for decision makers to help navigate the Anthropocene. <i>Infrastructure Asset Management</i> , 2014, 1, 160-170.	1.6	19

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55	Old world hipparion evolution, biogeography, climatology and ecology. Earth-Science Reviews, 2021, 221, 103784.	9.1	18
56	Use of meat resources in the Early Pleistocene assemblages from Fuente Nueva 3 (Orce, Granada,) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50	1.8	17
57	Taphonomic and spatial analyses from the Early Pleistocene site of Venta Micena 4 (Orce, Guadix-Baza) Tj ETQq1 1 0,784314 rgBT/Overlock 10 Tf 50	3.3	16
58	Recent Advances in Paleobiological Research of the Late Miocene Maragheh Fauna, Northwest Iran. , 2013, , 546-565.		16
59	Finding partial orders from unordered 0-1 data. , 2005, , .		14
60	The late Miocene hominoid-bearing site in the Maragheh Formation, Northwest Iran. Palaeobiodiversity and Palaeoenvironments, 2016, 96, 349-371.	1.5	14
61	A Humboldtian approach to life and climate of the geological past: Estimating palaeotemperature from dental traits of mammalian communities. Journal of Biogeography, 2019, 46, 1760-1776.	3.0	14
62	Unravelling Hominin Activities in the Zooarchaeological Assemblage of Barranco LeÃ³n (Orce,) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50 462	1.7	12
63	KÃ¢Ar ages and petrology of the late Miocene pumices from the Maragheh Formation, northwest Iran. Palaeobiodiversity and Palaeoenvironments, 2016, 96, 399-431.	1.5	11
64	Depositional environment reconstruction of the Maragheh Formation, East Azarbaijan, Northwestern Iran. Palaeobiodiversity and Palaeoenvironments, 2016, 96, 383-398.	1.5	11
65	The phylogenetic signal in tooth wear: What does it mean?. Ecology and Evolution, 2018, 8, 11359-11362.	1.9	11
66	New fossil Suidae from Shanwang, Shandong, China. Journal of Vertebrate Paleontology, 2002, 22, 152-163.	1.0	10
67	Continental-Scale Patterns in Neogene Mammal Community Evolution and Biogeography. , 2013, , 629-655.		10
68	GENERA ARE OFTEN BETTER THAN SPECIES FOR DETECTING EVOLUTIONARY CHANGE IN THE FOSSIL RECORD: A REPLY TO SALESA ET AL.. Evolution; International Journal of Organic Evolution, 2011, 65, 1514-1516.	2.3	9
69	Adaptive dynamics on an environmental gradient that changes over a geological time-scale. Journal of Theoretical Biology, 2015, 376, 91-104.	1.7	9
70	Relative abundances and palaeoecology of four suid genera in the Turkana Basin, Kenya, during the late Miocene to Pleistocene. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 487, 187-193.	2.3	9
71	The nature of the Old World savannah palaeobiome. Nature Ecology and Evolution, 2019, 3, 504-504.	7.8	9
72	The case of the grass-eating suids in the Plio-Pleistocene Turkana Basin: 3D dental topography in relation to diet in extant and fossil pigs. Journal of Morphology, 2020, 281, 348-364.	1.2	9

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73	Palynological investigations in the Orce Archaeological Zone, Early Pleistocene of Southern Spain. Review of Palaeobotany and Palynology, 2022, 304, 104725.	1.5	9
74	Modeling the Population-Level Processes of Biodiversity Gain and Loss at Geological Timescales. American Naturalist, 2015, 186, 742-754.	2.1	8
75	Introduction to the special issue "The late Miocene Maragheh mammal fauna; results of recent multidisciplinary research". Palaeobiodiversity and Palaeoenvironments, 2016, 96, 339-347.	1.5	6
76	The first hominoid from the Maragheh Formation, Iran. Palaeobiodiversity and Palaeoenvironments, 2016, 96, 373-381.	1.5	6
77	A new listriodont suid, <i>Bunolistriodon meidamon</i> sp. nov., from the middle Miocene of Anatolia. Journal of Vertebrate Paleontology, 1996, 16, 149-164.	1.0	5
78	On calibrating the completeness for the mammalian fossil record. Paleobiology, 2022, 48, 1-11.	2.0	5
79	The grassiness of all flesh. Journal of Biogeography, 2013, 40, 1213-1214.	3.0	4
80	Small mammal tooth enamel carbon isotope record of C4 grasses in late Neogene China. Global and Planetary Change, 2015, 133, 288-297.	3.5	4
81	Preliminary magnetostratigraphic results from the late Miocene Maragheh Formation, NW Iran. Palaeobiodiversity and Palaeoenvironments, 2016, 96, 433-443.	1.5	4
82	The largest land mammal ever imagined. Zoological Journal of the Linnean Society, 1993, 108, 85-101.	2.3	4
83	The palaeoenvironment of the middle Miocene pliopithecoid locality in Damiao, Inner Mongolia, China. Journal of Human Evolution, 2017, 108, 31-46.	2.6	3
84	Do species factories exist? Detecting exceptional patterns of evolution in the mammalian fossil record. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20212294.	2.6	3
85	Dental functional morphology predicts the scaling of chewing rate in mammals. Journal of Biomechanics, 2018, 67, 32-36.	2.1	2
86	Evolution of longevity in animals. A comparative approach. Journal of Human Evolution, 1989, 18, 283-285.	2.6	1
87	The Peopling of the Americas: No Revolution Yet?. Boreas, 2008, 15, 344-344.	2.4	1
88	Species discovery and dental ecometrics: good news, bad news and recommendations for the future. Historical Biology, 2023, 35, 678-692.	1.4	1
89	The Age of Mammals revisited. Lethaia, 1984, 17, 50-50.	1.4	0
90	Yesterday's camel. Boreas, 2008, 10, 136-136.	2.4	0

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91	Climate what climate?. Boreas, 2008, 14, 115-116.	2.4	0
92	Martin, Paul S. & Klein, Richard G. (eds.) 1984: Quaternary Extinctions: A Prehistoric Revolution. Boreas, 2008, 15, 136-136.	2.4	0
93	Two more books from A. A. Balkema. Boreas, 2008, 15, 32-32.	2.4	0
94	Mammal Proxy Methods for Estimating Precipitation. The Paleontological Society Special Publications, 2014, 13, 173-174.	0.0	0
95	All Sizes Fit the Red Queen. Paleobiology, 2020, 46, 478-494.	2.0	0
96	The best of all possible coexistence. Palaeobiodiversity and Palaeoenvironments, 2021, 101, 259-265.	1.5	0