

Callum F Ross

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

111
papers

5,541
citations

44
h-index

71
g-index

119
ext. papers

6,361
ext. citations

3.3
avg, IF

5.81
L-index

#	Paper	IF	Citations
111	Anthropoid origins. <i>Science</i> , 1997 , 275, 797-804	33.3	254
110	Basicranial flexion, relative brain size, and facial kyphosis in nonhuman primates. <i>American Journal of Physical Anthropology</i> , 1993 , 91, 305-24	2.5	226
109	Modeling elastic properties in finite-element analysis: how much precision is needed to produce an accurate model?. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2005 , 283, 275-87		208
108	The feeding biomechanics and dietary ecology of <i>Australopithecus africanus</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 2124-9	11.5	195
107	Into the Light: The Origin of Anthroidea. <i>Annual Review of Anthropology</i> , 2000 , 29, 147-194	3.6	191
106	Finite element analysis in functional morphology. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2005 , 283, 259-74		155
105	Allometric and functional influences on primate orbit orientation and the origins of the Anthroidea. <i>Journal of Human Evolution</i> , 1995 , 29, 201-227	3.1	154
104	Effects of brain and facial size on basicranial form in human and primate evolution. <i>Journal of Human Evolution</i> , 2010 , 58, 424-31	3.1	146
103	Phylogenetic analysis of anthropoid relationships. <i>Journal of Human Evolution</i> , 1998 , 35, 221-306	3.1	145
102	Basicranial flexion, relative brain size, and facial kyphosis in <i>Homo sapiens</i> and some fossil hominids. <i>American Journal of Physical Anthropology</i> , 1995 , 98, 575-93	2.5	140
101	Evolution of activity patterns and chromatic vision in primates: morphometrics, genetics and cladistics. <i>Journal of Human Evolution</i> , 2001 , 40, 111-49	3.1	137
100	Evolution of eye size and shape in primates. <i>Journal of Human Evolution</i> , 2007 , 52, 294-313	3.1	126
99	Eye shape and activity pattern in birds. <i>Journal of Zoology</i> , 2007 , 271, 437-444	2	120
98	Adaptive explanation for the origins of the anthroidea (primates). <i>American Journal of Primatology</i> , 1996 , 40, 205-230	2.5	114
97	Modeling masticatory muscle force in finite element analysis: sensitivity analysis using principal coordinates analysis. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2005 , 283, 288-99		113
96	In vivo function of the craniofacial haft: the interorbital "pillar". <i>American Journal of Physical Anthropology</i> , 2001 , 116, 108-39	2.5	99
95	Curvilinear, geometric and phylogenetic modeling of basicranial flexion: is it adaptive, is it constrained?. <i>Journal of Human Evolution</i> , 2004 , 46, 185-213	3.1	96

94	Primate auditory diversity and its influence on hearing performance. <i>The Anatomical Record</i> , 2004 , 281, 1123-37		84
93	Masticatory biomechanics and its relevance to early hominid phylogeny: an examination of palatal thickness using finite-element analysis. <i>Journal of Human Evolution</i> , 2007 , 52, 585-99	3.1	81
92	In vivo bone strain and finite-element modeling of the craniofacial haft in catarrhine primates. <i>Journal of Anatomy</i> , 2011 , 218, 112-41	2.9	75
91	The feeding biomechanics and dietary ecology of <i>Paranthropus boisei</i> . <i>Anatomical Record</i> , 2015 , 298, 145-67	2.1	74
90	Temporalis function in anthropoids and strepsirrhines: an EMG study. <i>American Journal of Physical Anthropology</i> , 2005 , 128, 35-56	2.5	73
89	Viewpoints: diet and dietary adaptations in early hominins: the hard food perspective. <i>American Journal of Physical Anthropology</i> , 2013 , 151, 339-55	2.5	72
88	The influence of food material properties on jaw kinematics in the primate, <i>Cebus</i> . <i>Archives of Oral Biology</i> , 2010 , 55, 946-62	2.8	72
87	Innovative Approaches to the Relationship Between Diet and Mandibular Morphology in Primates. <i>International Journal of Primatology</i> , 2012 , 33, 632-660	2	70
86	Physician opinions about an anatomy core curriculum: a case for medical imaging and vertical integration. <i>Anatomical Sciences Education</i> , 2014 , 7, 251-61	6.8	67
85	The evolution of cranial design and performance in squamates: Consequences of skull-bone reduction on feeding behavior. <i>Integrative and Comparative Biology</i> , 2007 , 47, 107-17	2.8	66
84	Modulation of intra-oral processing in mammals and lepidosaurs. <i>Integrative and Comparative Biology</i> , 2007 , 47, 118-36	2.8	66
83	Bone strain gradients and optimization in vertebrate skulls. <i>Annals of Anatomy</i> , 2004 , 186, 387-96	2.9	65
82	The structural rigidity of the cranium of <i>Australopithecus africanus</i> : implications for diet, dietary adaptations, and the allometry of feeding biomechanics. <i>Anatomical Record</i> , 2010 , 293, 583-93	2.1	64
81	Comparison of beam theory and finite-element analysis with in vivo bone strain data from the alligator cranium. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2005 , 283, 331-48		62
80	The effects of modeling simplifications on craniofacial finite element models: the alveoli (tooth sockets) and periodontal ligaments. <i>Journal of Biomechanics</i> , 2011 , 44, 1831-8	2.9	61
79	Modulation of mandibular loading and bite force in mammals during mastication. <i>Journal of Experimental Biology</i> , 2007 , 210, 1046-63	3	61
78	Finite element analysis in vertebrate biomechanics. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2005 , 283, 253-8		59
77	Substrate Diameter and Orientation in the Context of Food Type in the Gray Mouse Lemur, <i>Microcebus murinus</i> : Implications for the Origins of Grasping in Primates. <i>International Journal of Primatology</i> , 2015 , 36, 583-604	2	54

76	Muscular and osseous anatomy of the primate anterior temporal fossa and the functions of the postorbital septum. <i>American Journal of Physical Anthropology</i> , 1995 , 98, 275-306	2.5	54
75	Free body analysis, beam mechanics, and finite element modeling of the mandible of Alligator mississippiensis. <i>Journal of Morphology</i> , 2011 , 272, 910-37	1.6	52
74	Ecological consequences of scaling of chew cycle duration and daily feeding time in primates. <i>Journal of Human Evolution</i> , 2009 , 56, 570-85	3.1	52
73	What does feeding system morphology tell us about feeding?. <i>Evolutionary Anthropology</i> , 2014 , 23, 105-20	2.9	51
72	A new coelurosaurian dinosaur from the Early Cretaceous of South Africa. <i>Journal of Vertebrate Paleontology</i> , 2000 , 20, 324-332	1.7	51
71	Craniodental allometry and heterochrony in two howler monkeys: <i>Alouatta seniculus</i> and <i>A. palliata</i> . <i>American Journal of Primatology</i> , 1994 , 33, 277-299	2.5	50
70	Primary motor and sensory cortical areas communicate via spatiotemporally coordinated networks at multiple frequencies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5083-8	11.5	47
69	Scaling of chew cycle duration in primates. <i>American Journal of Physical Anthropology</i> , 2009 , 138, 30-44	2.5	44
68	Electromyography of the anterior temporalis and masseter muscles of owl monkeys (<i>Aotus trivirgatus</i>) and the function of the postorbital septum. <i>American Journal of Physical Anthropology</i> , 2000 , 112, 455-68	2.5	44
67	Chewing variation in lepidosaurs and primates. <i>Journal of Experimental Biology</i> , 2010 , 213, 572-84	3	42
66	Similarity in Neuronal Firing Regimes across Mammalian Species. <i>Journal of Neuroscience</i> , 2016 , 36, 5736-47	6.47	42
65	Modulation dynamics in the orofacial sensorimotor cortex during motor skill acquisition. <i>Journal of Neuroscience</i> , 2014 , 34, 5985-97	6.6	37
64	Mechanical evidence that <i>Australopithecus sediba</i> was limited in its ability to eat hard foods. <i>Nature Communications</i> , 2016 , 7, 10596	17.4	36
63	Evolution of the special senses in primates: past, present, and future. <i>The Anatomical Record</i> , 2004 , 281, 1078-82		35
62	Human feeding biomechanics: performance, variation, and functional constraints. <i>PeerJ</i> , 2016 , 4, e2242	3.1	35
61	The role of the sutures in biomechanical dynamic simulation of a macaque cranial finite element model: implications for the evolution of craniofacial form. <i>Anatomical Record</i> , 2012 , 295, 278-88	2.1	34
60	The impact of bone and suture material properties on mandibular function in Alligator mississippiensis: testing theoretical phenotypes with finite element analysis. <i>Journal of Anatomy</i> , 2011 , 218, 59-74	2.9	34
59	Biomechanical implications of intraspecific shape variation in chimpanzee crania: moving toward an integration of geometric morphometrics and finite element analysis. <i>Anatomical Record</i> , 2015 , 298, 122-44	2.44	33

58	Food acquisition on arboreal substrates by the grey mouse lemur: implication for primate grasping evolution. <i>Journal of Zoology</i> , 2013 , 291, 235-242	2	33
57	Sources of variance in temporal and spatial aspects of jaw kinematics in two species of primates feeding on foods of different properties. <i>Integrative and Comparative Biology</i> , 2011 , 51, 307-19	2.8	33
56	A finite element analysis of masticatory stress hypotheses. <i>American Journal of Physical Anthropology</i> , 2011 , 145, 1-10	2.5	31
55	Improved understanding of human anatomy through self-guided radiological anatomy modules. <i>Academic Radiology</i> , 2012 , 19, 902-7	4.3	30
54	In vivo bone strain and finite element modeling of the mandible of Alligator mississippiensis. <i>Journal of Anatomy</i> , 2013 , 223, 195-227	2.9	29
53	A new pipoid anuran from the Late Cretaceous of South Africa. <i>Journal of Vertebrate Paleontology</i> , 2005 , 25, 533-547	1.7	29
52	Material properties of mandibular cortical bone in the American alligator, Alligator mississippiensis. <i>Bone</i> , 2010 , 46, 860-7	4.7	27
51	Dynamic Musculoskeletal Functional Morphology: Integrating diceCT and XROMM. <i>Anatomical Record</i> , 2018 , 301, 378-406	2.1	26
50	Probabilistic finite element analysis of a craniofacial finite element model. <i>Journal of Theoretical Biology</i> , 2012 , 300, 242-53	2.3	26
49	Allometry of masticatory loading parameters in mammals. <i>Anatomical Record</i> , 2010 , 293, 557-71	2.1	26
48	Rhythmic chewing with oral jaws in teleost fishes: a comparison with amniotes. <i>Journal of Experimental Biology</i> , 2010 , 213, 1868-75	3	25
47	Electromyography and the evolution of motor control: limitations and insights. <i>Integrative and Comparative Biology</i> , 2008 , 48, 261-71	2.8	24
46	The petrosal of <i>Omomys carteri</i> and the evolution of the primate basicranium. <i>Journal of Human Evolution</i> , 2000 , 39, 225-51	3.1	24
45	Inter-stride variability triggers gait transitions in mammals and birds. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018 , 285, 20181766	4.4	23
44	Sexual dimorphism in bite force in the grey mouse lemur. <i>Journal of Zoology</i> , 2015 , 296, 133-138	2	22
43	Review of In Vivo Bone Strain Studies and Finite Element Models of the Zygomatic Complex in Humans and Nonhuman Primates: Implications for Clinical Research and Practice. <i>Anatomical Record</i> , 2016 , 299, 1753-1778	2.1	22
42	Lepidosaurian remains from the Lower Cretaceous Kirkwood Formation of South Africa. <i>Journal of Vertebrate Paleontology</i> , 1999 , 19, 21-27	1.7	22
41	Directional information from neuronal ensembles in the primate orofacial sensorimotor cortex. <i>Journal of Neurophysiology</i> , 2013 , 110, 1357-69	3.2	20

40	Teaching anatomy with dissection in the time of COVID-19 is essential and possible. <i>Clinical Anatomy</i> , 2021 , 34, 1135-1136	2.5	19
39	Jaw-muscle force and excursion scale with negative allometry in platyrrhine primates. <i>American Journal of Physical Anthropology</i> , 2015 , 158, 242-256	2.5	19
38	In vivo bone strain and finite element modeling of a rhesus macaque mandible during mastication. <i>Zoology</i> , 2017 , 124, 13-29	1.7	18
37	Fossil papio cranium from !Ncumtsa (Koanaka) Hills, western Ngamiland, Botswana. <i>American Journal of Physical Anthropology</i> , 2012 , 149, 1-17	2.5	17
36	In vivo bone strain in the mandibular corpus of Sapajus during a range of oral food processing behaviors. <i>Journal of Human Evolution</i> , 2016 , 98, 36-65	3.1	16
35	Functional correlates of the position of the axis of rotation of the mandible during chewing in non-human primates. <i>Zoology</i> , 2017 , 124, 106-118	1.7	16
34	The instantaneous center of rotation of the mandible in nonhuman primates. <i>Integrative and Comparative Biology</i> , 2011 , 51, 320-32	2.8	16
33	The functional significance of the lower temporal bar in Sphenodon punctatus. <i>Journal of Experimental Biology</i> , 2008 , 211, 3908-14	3	16
32	Jaw-Muscle Fiber Architecture and Leverage in the Hard-Object Feeding Sooty Mangabey are not Structured to Facilitate Relatively Large Bite Forces Compared to Other Papionins. <i>Anatomical Record</i> , 2018 , 301, 325-342	2.1	15
31	The evolution of locomotor rhythmicity in tetrapods. <i>Evolution; International Journal of Organic Evolution</i> , 2013 , 67, 1209-17	3.8	15
30	The Biomechanics of Bony Facial "Buttresses" in South African Australopiths: An Experimental Study Using Finite Element Analysis. <i>Anatomical Record</i> , 2017 , 300, 171-195	2.1	12
29	Joint angular excursions during cyclical behaviors differ between tetrapod feeding and locomotor systems. <i>Journal of Experimental Biology</i> , 2019 , 222,	3	12
28	The Mechanical Effect of the Periodontal Ligament on Bone Strain Regimes in a Validated Finite Element Model of a Macaque Mandible. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019 , 7, 269	5.8	12
27	Evolution of muscle activity patterns driving motions of the jaw and hyoid during chewing in Gnathostomes. <i>Integrative and Comparative Biology</i> , 2011 , 51, 235-46	2.8	12
26	A Basal Tetanuran from the Lower Cretaceous Kirkwood Formation of South Africa. <i>Journal of Vertebrate Paleontology</i> , 2009 , 29, 283-285	1.7	12
25	Direct correlation of radiologic and cadaveric structures in a gross anatomy course. <i>Medical Teacher</i> , 2012 , 34, e779-84	3	11
24	The dental microwear of hard-object feeding in laboratory Sapajus apella and its implications for dental microwear formation. <i>American Journal of Physical Anthropology</i> , 2020 , 171, 439-455	2.5	11
23	Bone strain magnitude is correlated with bone strain rate in tetrapods: implications for models of mechanotransduction. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015 , 282,	4.4	9

22	In vivo cranial bone strain and bite force in the agamid lizard <i>Uromastyx geyri</i> . <i>Journal of Experimental Biology</i> , 2014 , 217, 1983-92	3	9
21	Sexual Shape Dimorphism in Tuatara. <i>Copeia</i> , 2009 , 2009, 727-731	1.1	9
20	Biomechanics of the mandible of <i>Macaca mulatta</i> during the power stroke of mastication: Loading, deformation, and strain regimes and the impact of food type. <i>Journal of Human Evolution</i> , 2020 , 147, 102865	3.1	9
19	Scaling of rotational inertia of primate mandibles. <i>Journal of Human Evolution</i> , 2017 , 106, 119-132	3.1	8
18	XROMM and diceCT reveal a hydraulic mechanism of tongue base retraction in swallowing. <i>Scientific Reports</i> , 2020 , 10, 8215	4.9	8
17	Evaluating the triplet hypothesis during rhythmic mastication in primates. <i>Journal of Experimental Biology</i> , 2018 , 221,	3	7
16	Dynamics of motor cortical activity during naturalistic feeding behavior. <i>Journal of Neural Engineering</i> , 2019 , 16, 026038	5	6
15	Skull shape and the demands of feeding: a biomechanical study of peccaries (Mammalia, Cetartiodactyla). <i>Journal of Mammalogy</i> , 2019 , 100, 475-486	1.8	5
14	Elastic Properties of Chimpanzee Craniofacial Cortical Bone. <i>Anatomical Record</i> , 2016 , 299, 1718-1733	2.1	5
13	Primary sensorimotor cortex exhibits complex dependencies of spike-field coherence on neuronal firing rates, field power, and behavior. <i>Journal of Neurophysiology</i> , 2018 , 120, 226-238	3.2	5
12	Integrating XMA Lab and DeepLabCut for high-throughput XROMM. <i>Journal of Experimental Biology</i> , 2020 , 223,	3	5
11	Bite force and cranial bone strain in four species of lizards. <i>Journal of Experimental Biology</i> , 2018 , 221,	3	5
10	Comparative cranial biomechanics in two lizard species: impact of variation in cranial design. <i>Journal of Experimental Biology</i> , 2021 , 224,	3	4
9	Internal Bone Architecture in the Zygoma of Human and Pan. <i>Anatomical Record</i> , 2016 , 299, 1704-1717	2.1	4
8	Taking a big bite: Working together to better understand the evolution of feeding in primates. <i>American Journal of Primatology</i> , 2019 , 81, e22981	2.5	3
7	Granger causality analysis of functional connectivity of spiking neurons in orofacial motor cortex during chewing and swallowing. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2012 , 2012, 4587-90	0.9	3
6	Comparative biomechanics of the and mandibles during mastication: finite element modelling of loading, deformation and strain regimes.. <i>Interface Focus</i> , 2021 , 11, 20210031	3.9	3
5	Semiautomatic marker tracking of tongue positions captured by videofluoroscopy during primate feeding. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 5347-50	0.9	2

4	Twist and chew: three-dimensional tongue kinematics during chewing in macaque primates.. <i>Biology Letters</i> , 2021 , 17, 20210431	3.6	1
3	Recurrence network analysis of multiple local field potential bands from the orofacial portion of primary motor cortex. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 5343-6	0.9	
2	Morphological disparity and evolutionary transformations in the primate hyoid apparatus. <i>Journal of Human Evolution</i> , 2021 , 162, 103094	3.1	
1	Jaw Elevator Muscle Coordination during Rhythmic Mastication in Primates: Are Triplets Units of Motor Control?. <i>Brain, Behavior and Evolution</i> , 2020 , 95, 1-14	1.5	