

Nicholas D Pyenson

List of Publications by Year in descending order

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Version: 2024-02-01

75
papers

3,465
citations

147566

31
h-index

149479

56
g-index

76
all docs

76
docs citations

76
times ranked

3118
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation of the Isthmus of Panama. <i>Science Advances</i> , 2016, 2, e1600883.	4.7	565
2	Mechanics, hydrodynamics and energetics of blue whale lunge feeding: efficiency dependence on krill density. <i>Journal of Experimental Biology</i> , 2011, 214, 131-146.	0.8	198
3	Evolutionary innovation and ecology in marine tetrapods from the Triassic to the Anthropocene. <i>Science</i> , 2015, 348, aaa3716.	6.0	142
4	Independent evolution of baleen whale gigantism linked to Plio-Pleistocene ocean dynamics. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20170546.	1.2	140
5	Reconstructing Body Size in Extinct Crown Cetacea (Neoceti) Using Allometry, Phylogenetic Methods and Tests from the Fossil Record. <i>Journal of Mammalian Evolution</i> , 2011, 18, 269-288.	1.0	138
6	Big gulps require high drag for fin whale lunge feeding. <i>Marine Ecology - Progress Series</i> , 2007, 349, 289-301.	0.9	129
7	Scaling of lunge-feeding performance in rorqual whales: mass-specific energy expenditure increases with body size and progressively limits diving capacity. <i>Functional Ecology</i> , 2012, 26, 216-226.	1.7	113
8	Why whales are big but not bigger: Physiological drivers and ecological limits in the age of ocean giants. <i>Science</i> , 2019, 366, 1367-1372.	6.0	109
9	The high fidelity of the cetacean stranding record: insights into measuring diversity by integrating taphonomy and macroecology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 3608-3616.	1.2	88
10	Discovery of a sensory organ that coordinates lunge feeding in rorqual whales. <i>Nature</i> , 2012, 485, 498-501.	13.7	88
11	New sea turtle from the Miocene of Peru and the iterative evolution of feeding ecomorphologies since the Cretaceous. <i>Journal of Paleontology</i> , 2010, 84, 231-247.	0.5	84
12	Baleen whale prey consumption based on high-resolution foraging measurements. <i>Nature</i> , 2021, 599, 85-90.	13.7	82
13	Pinniped turnover in the South Pacific Ocean: new evidence from the Plio-Pleistocene of the Atacama Desert, Chile. <i>Journal of Vertebrate Paleontology</i> , 2013, 33, 216-223.	0.4	69
14	Iterative Evolution of Sympatric Seacow (Dugongidae, Sirenia) Assemblages during the Past ~1/426 Million Years. <i>PLoS ONE</i> , 2012, 7, e31294.	1.1	67
15	Morphology of the odontocete melon and its implications for acoustic function. <i>Marine Mammal Science</i> , 2012, 28, 690-713.	0.9	65
16	Repeated mass strandings of Miocene marine mammals from Atacama Region of Chile point to sudden death at sea. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20133316.	1.2	63
17	Carcasses on the coastline: measuring the ecological fidelity of the cetacean stranding record in the eastern North Pacific Ocean. <i>Paleobiology</i> , 2010, 36, 453-480.	1.3	61
18	Origin of a widespread marine bonebed deposited during the middle Miocene Climatic Optimum. <i>Geology</i> , 2009, 37, 519-522.	2.0	54

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19	Things that go bump in the night: evolutionary interactions between cephalopods and cetaceans in the tertiary. <i>Lethaia</i> , 2007, 40, 335-343.	0.6	53
20	The rise of ocean giants: maximum body size in Cenozoic marine mammals as an indicator for productivity in the Pacific and Atlantic Oceans. <i>Biology Letters</i> , 2016, 12, 20160186.	1.0	50
21	What Happened to Gray Whales during the Pleistocene? The Ecological Impact of Sea-Level Change on Benthic Feeding Areas in the North Pacific Ocean. <i>PLoS ONE</i> , 2011, 6, e21295.	1.1	50
22	Reconstructing cetacean brain evolution using computed tomography. <i>The Anatomical Record</i> , 2003, 272B, 107-117.	2.3	43
23	The Ecological Rise of Whales Chronicled by the Fossil Record. <i>Current Biology</i> , 2017, 27, R558-R564.	1.8	43
24	Diversity biases in terrestrial mammalian assemblages and quantifying the differences between museum collections and published accounts: A case study from the Miocene of Nevada. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2007, 250, 139-149.	1.0	42
25	New Middle Eocene Whales from the Pisco Basin of Peru. <i>Journal of Paleontology</i> , 2011, 85, 955-969.	0.5	42
26	Mandible allometry in extant and fossil Balaenopteridae (Cetacea: Mammalia): the largest vertebrate skeletal element and its role in rorqual lunge feeding. <i>Biological Journal of the Linnean Society</i> , 2013, 108, 586-599.	0.7	42
27	Novel muscle and connective tissue design enables high extensibility and controls engulfment volume in lunge-feeding rorqual whales. <i>Journal of Experimental Biology</i> , 2013, 216, 2691-701.	0.8	40
28	Tooth Loss Precedes the Origin of Baleen in Whales. <i>Current Biology</i> , 2018, 28, 3992-4000.e2.	1.8	40
29	Decoupling Tooth Loss from the Evolution of Baleen in Whales. <i>Frontiers in Marine Science</i> , 2017, 4, .	1.2	36
30	Osteological correlates and phylogenetic analysis of deep diving in living and extinct pinnipeds: What good are big eyes?. <i>Marine Mammal Science</i> , 2013, 29, 48-83.	0.9	35
31	<i>Isthminia panamensis</i> , a new fossil inioid (Mammalia, Cetacea) from the Chagres Formation of Panama and the evolution of "river dolphins" in the Americas. <i>PeerJ</i> , 2015, 3, e1227.	0.9	35
32	The repeated evolution of dental apicobasal ridges in aquatic-feeding mammals and reptiles. <i>Biological Journal of the Linnean Society</i> , 2019, 127, 245-259.	0.7	34
33	What do we know about the fossil record of pinnipeds? A historiographical investigation. <i>Royal Society Open Science</i> , 2019, 6, 191394.	1.1	33
34	High frequency echolocation, ear morphology, and the marine "freshwater transition: A comparative study of extant and extinct toothed whales. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2014, 400, 62-74.	1.0	30
35	Stretchy nerves are an essential component of the extreme feeding mechanism of rorqual whales. <i>Current Biology</i> , 2015, 25, R360-R361.	1.8	29
36	<i>Arktocara yakataga</i> , a new fossil odontocete (Mammalia, Cetacea) from the Oligocene of Alaska and the antiquity of Platanistoidea. <i>PeerJ</i> , 2016, 4, e2321.	0.9	24

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37	The Antiquity of Riverine Adaptations in Iniidae (Cetacea, Odontoceti) Documented by a Humerus from the Late Miocene of the Ituzaingó ³ Formation, Argentina. <i>Anatomical Record</i> , 2014, 297, 1096-1102.	0.8	23
38	A new dwarf seal from the late Neogene of South America and the evolution of pinnipeds in the southern hemisphere. <i>Papers in Palaeontology</i> , 2016, 2, 101-115.	0.7	23
39	Miocene whale-fall from California demonstrates that cetacean size did not determine the evolution of modern whale-fall communities. <i>Biology Letters</i> , 2007, 3, 709-711.	1.0	22
40	Tortonian pontoporiid odontocetes from the Eastern North Sea. <i>Journal of Vertebrate Paleontology</i> , 2007, 27, 757-762.	0.4	22
41	Hyper-longirostry and kinematic disparity in extinct toothed whales. <i>Paleobiology</i> , 2019, 45, 21-29.	1.3	22
42	Extreme dispersal or human-transport? The enigmatic case of an extralimital freshwater occurrence of a Southern elephant seal from Indiana. <i>PeerJ</i> , 2020, 8, e9665.	0.9	22
43	<i>Bohaskaia monodontoides</i> , a new monodontid (Cetacea, Odontoceti, Delphinoidea) from the Pliocene of the western North Atlantic Ocean. <i>Journal of Vertebrate Paleontology</i> , 2012, 32, 476-484.	0.4	20
44	Early Development and Orientation of the Acoustic Funnel Provides Insight into the Evolution of Sound Reception Pathways in Cetaceans. <i>PLoS ONE</i> , 2015, 10, e0118582.	1.1	20
45	<i>Albicetus oxymycterus</i> , a New Generic Name and Redescription of a Basal Physeteroid (Mammalia). <i>Tj ETQq1 1 0.784314 rgBT /Overl</i> 2015, 10, e0135551.	1.1	18
46	Feeding in Aquatic Mammals: An Evolutionary and Functional Approach. <i>Fascinating Life Sciences</i> , 2019, , 743-785.	0.5	18
47	Late Pleistocene gray whales (<i>Eschrichtius robustus</i>) offshore Georgia, U.S.A., and the antiquity of gray whale migration in the North Atlantic Ocean. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2013, 392, 502-509.	1.0	17
48	<i>Salishicetus meadi</i> , a new aetiocetid from the late Oligocene of Washington State and implications for feeding transitions in early mysticete evolution. <i>Royal Society Open Science</i> , 2018, 5, 172336.	1.1	17
49	Requiem for <i>Lipotes</i> : An evolutionary perspective on marine mammal extinction. <i>Marine Mammal Science</i> , 2009, 25, 714-724.	0.9	15
50	Comment on "Climate, Critters, and Cetaceans: Cenozoic Drivers of the Evolution of Modern Whales". <i>Science</i> , 2010, 330, 178-178.	6.0	15
51	Mechanics, hydrodynamics and energetics of blue whale lunge feeding: efficiency dependence on krill density. <i>Journal of Experimental Biology</i> , 2011, 214, 698-699.	0.8	15
52	Elephant seal (<i>Mirounga</i> sp.) from the Pleistocene of the Antofagasta Region, northern Chile. <i>Journal of Vertebrate Paleontology</i> , 2015, 35, e918883.	0.4	15
53	Oroclinal bending of the Juan Fernández Ridge suggested by geohistory analysis of the Bahía Inglesa Formation, north-central Chile. <i>Sedimentary Geology</i> , 2016, 333, 32-49.	1.0	15
54	A new fossil dolphin <i>Dilophodelphis fordycei</i> provides insight into the evolution of supraorbital crests in Platanistoidea (Mammalia, Cetacea). <i>Royal Society Open Science</i> , 2017, 4, 170022.	1.1	14

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55	Convergence on dental simplification in the evolution of whales. <i>Paleobiology</i> , 2018, 44, 434-443.	1.3	14
56	Alveoli, teeth, and tooth loss: Understanding the homology of internal mandibular structures in mysticete cetaceans. <i>PLoS ONE</i> , 2017, 12, e0178243.	1.1	13
57	Structure and Function in the Lunge Feeding Apparatus: Mechanical Properties of the Fin Whale Mandible. <i>Anatomical Record</i> , 2017, 300, 1953-1962.	0.8	12
58	Using morphology to infer physiology: case studies on rorqual whales (<i>Balaenopteridae</i>). <i>Canadian Journal of Zoology</i> , 2015, 93, 687-700.	0.4	11
59	Brain size evolution in whales and dolphins: new data from fossil mysticetes. <i>Biological Journal of the Linnean Society</i> , 2021, 133, 990-998.	0.7	9
60	<i>Norrisanima miocaena</i> , a new generic name and redescription of a stem balaenopteroid mysticete (Mammalia, Cetacea) from the Miocene of California. <i>PeerJ</i> , 2019, 7, e7629.	0.9	9
61	Diplomacy for the world's hottest sea. <i>Science</i> , 2022, 376, 1389-1390.	6.0	8
62	Extensively remodeled, fractured cetacean tympanic bullae show that whales can survive traumatic injury to the ears. <i>Journal of Anatomy</i> , 2016, 228, 125-136.	0.9	7
63	<i>Borealodon osedax</i> , a new stem mysticete (Mammalia, Cetacea) from the Oligocene of Washington State and its implications for fossil whale-fall communities. <i>Royal Society Open Science</i> , 2019, 6, 182168.	1.1	6
64	What are the limits on whale ear bone size? Non-isometric scaling of the cetacean bulla. <i>PeerJ</i> , 2021, 9, e10882.	0.9	5
65	Snagging teeth and premolar homologies in Paleoparadoxiidae (Mammalia: Desmostylia). <i>Journal of Vertebrate Paleontology</i> , 2008, 28, 923-927.	0.4	4
66	The dilemma of trade samples and the importance of museum vouchers' caveats from a study on the extinction of Steller's sea cow: a comment on Crerar et al. (2014). <i>Biology Letters</i> , 2016, 12, 20150149.	1.0	4
67	Morphological variation of the relictual alveolar structures in the mandibles of baleen whales. <i>PeerJ</i> , 2021, 9, e11890.	0.9	3
68	How to Produce Translational Research to Guide Arctic Policy. <i>BioScience</i> , 2017, 67, 490-493.	2.2	2
69	Exposing the secret life of whales at the World Economic Forum. <i>Nature</i> , 2020, 577, 583-584.	13.7	2
70	When sharks nearly disappeared. <i>Science</i> , 2021, 372, 1036-1037.	6.0	2
71	Oh, the shark has such teeth: Did megatooth sharks play a larger role in prehistoric food webs?. <i>Science Advances</i> , 2022, 8, .	4.7	2
72	Ecology and Conservation of the Sirenia: Dugongs and Manatees. <i>Conservation Biology</i> , Volume 18. By Helene Marsh, Thomas J. O'Shea, and John E. Reynolds III. Cambridge and New York: Cambridge University Press. \$135.00 (hardcover); \$65.00 (paper). xvi + 521 p. + 4 pl.; ill.; index. ISBN: 978-0-521-88828-8 (hc); 978-0-521-71643-7 (pb). 2012.. <i>Quarterly Review of Biology</i> , 2013, 88, 42-43.	0.0	0

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73	Museums and Collections. , 2018, , 625-626.		0
74	Where to find fantastic beasts at sea. Science, 2019, 363, 338-339.	6.0	0
75	Early and fast rise of Mesozoic ocean giants. Science, 2021, 374, 1554-1555.	6.0	0