P David Polly

List of Publications by Year
in descending order

114 papers	4,912 citations	101496 36 h-index	114418 63 g-index
125 all docs	125 docs citations	125 times ranked	4589 citing authors

#	Article	IF	Citations
1	On Information Rank Deficiency in Phenotypic Covariance Matrices. Systematic Biology, 2022, 71, 810-822.	2.7	5
2	The role of dispersal, selection intensity, and extirpation risk in resilience to climate change: A traitâ€based modelling approach. Global Ecology and Biogeography, 2022, 31, 1184-1193.	2.7	1
3	Detecting Mismatch in Functional Narratives of Animal Morphology: A Test Case with Fossils. Integrative and Comparative Biology, 2022, 62, 817-828.	0.9	4
4	Morphological integration and modularity in the hyperkinetic feeding system of aquaticâ€foraging snakes. Evolution; International Journal of Organic Evolution, 2021, 75, 56-72.	1.1	32
5	On the Misidentification of Species: Sampling Error in Primates and Other Mammals Using Geometric Morphometrics in More Than 4000 Individuals. Evolutionary Biology, 2021, 48, 190-220.	0.5	15
6	Temporal lobe evolution in Javanese Homo erectus and African Homo ergaster: Inferences from the cranial base. Quaternary International, 2021, 603, 5-21.	0.7	3
7	Postcrania and paleobiology of Patriofelis ulta (Mammalia, Oxyaenodonta) of the Bridgerian (lowerâ€“middle Eocene) of North America. Journal of Vertebrate Paleontology, 2021, 41, .	0.4	2
8	A Bayesian extension of phylogenetic generalized least squares: Incorporating uncertainty in the comparative study of trait relationships and evolutionary rates. Evolution; International Journal of Organic Evolution, 2020, 74, 311-325.	1.1	8
9	Functional Tradeoffs Carry Phenotypes Across the Valley of the Shadow of Death. Integrative and Comparative Biology, 2020, 60, 1268-1282.	0.9	26
10	Is the middle cranial fossa a reliable predictor of temporal lobe volume in extant and fossil anthropoids?. American Journal of Physical Anthropology, 2020, 172, 698-713.	2.1	6
11	Cross-validated Between Group PCA Scatterplots: A Solution to Spurious Group Separation?. Evolutionary Biology, 2020, 47, 85-95.	0.5	34
12	Ecometrics and Neogene faunal turnover: the roles of cats and hindlimb morphology in the assembly of carnivoran communities in the New World. Geodiversitas, 2020, 42, 257.	0.2	7
13	High-Density Morphometric Analysis of Shape and Integration: The Good, the Bad, and the Not-Really-a-Problem. Integrative and Comparative Biology, 2019, 59, 669-683.	0.9	70
14	Milestones in Common Shrew Chromosomal Research. , 2019, , 1-18.		1
15	Introducing the Common Shrew. , 2019, , 19-67.		6
16	Morphology and Genetics of the Common Shrew: General Features. , 2019, , 68-111.		4
17	Climate, Diversification and Refugia in the Common Shrew: Evidence from the Fossil Record. , 2019, , 407-454.		0
18	Geometric Morphometric Tests for Phenotypic Divergence Between Chromosomal Races. , 2019, , 336-364.		9

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19	Stable isotopes of H, C and N in mice bone collagen as a reflection of isotopically controlled food and water intake. Isotopes in Environmental and Health Studies, 2019, 55, 129-149.	0.5	10
20	Spatial processes and evolutionary models: a critical review. Palaeontology, 2019, 62, 175-195.	1.0	7
21	Land mammals form eight functionally and climatically distinct faunas in North America but only one in Europe. Journal of Biogeography, 2019, 46, 185-195.	1.4	3
22	The evolution of relative trait size and shape: insights from the genitalia of dung beetles. Development Genes and Evolution, 2018, 228, 83-93.	0.4	9
23	Heritability: the link between development and the microevolution of molar tooth form. Historical Biology, 2018, 30, 53-63.	0.7	15
24	Fossil herbivores and crocodiles as paleoclimatic indicators of environmental shifts from Bed I and Bed II times of the Olduvai Gorge, Tanzania. Palaeogeography, Palaeoclimatology, Palaeoecology, 2018, 511, 550-557.	1.0	7
25	Marsupial responses to global aridification. Science, 2018, 362, 25-26.	6.0	0
26	Ecometrics: A Trait-Based Approach to Paleoclimate and Paleoenvironmental Reconstruction. Vertebrate Paleobiology and Paleoanthropology, 2018, , 373-394.	0.1	18
27	Taxonomic and evolutionary pattern revisions resulting from geometric morphometric analysis of Pennsylvanian Neognathodus conodonts, Illinois Basin. Paleobiology, 2018, 44, 660-683.	1.3	6
28	Fossils reveal the complex evolutionary history of the mammalian regionalized spine. Science, 2018, 361, 1249-1252.	6.0	60
29	Merging paleobiology with conservation biology to guide the future of terrestrial ecosystems. Science, 2017, 355, .	6.0	260
30	Brain enlargement and dental reduction were not linked in hominin evolution. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 468-473.	3.3	45
31	Community functional trait composition at the continental scale: the effects of nonâ€ecological processes. Ecography, 2017, 40, 651-663.	2.1	25
32	PATTERNS AND PROCESSES IN MORPHOSPACE: GEOMETRIC MORPHOMETRICS OF THREE-DIMENSIONAL OBJECTS. The Paleontological Society Papers, 2016, 22, 71-99.	0.8	20
33	Quantitative genetics provides predictive power for paleontological studies of morphological evolution. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9142-9144.	3.3	4
34	Do Developmental Constraints and High Integration Limit the Evolution of the Marsupial Oral Apparatus?. Integrative and Comparative Biology, 2016, 56, 404-415.	0.9	49
35	Including Fossils in Phylogenetic Climate Reconstructions: A Deep Time Perspective on the Climatic Niche Evolution and Diversification of Spiny Lizards (Sceloporus). American Naturalist, 2016, 188, 133-148.	1.0	23
36	Processes of ecometric patterning: modelling functional traits, environments, and clade dynamics in deep time. Biological Journal of the Linnean Society, 2016, 118, 39-63.	0.7	15

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37	Combining geometric morphometrics and finite element analysis with evolutionary modeling: towards a synthesis. Journal of Vertebrate Paleontology, 2016, 36, e1111225.	0.4	97
38	Earth-Life Transitions: Paleobiology in the Context of Earth System Evolution. The Paleontological Society Papers, 2015, 21, xi-xii.	0.8	3
39	Measuring Earth-Life Transitions: Ecometric Analysis of Functional Traits from Late Cenozoic Vertebrates. The Paleontological Society Papers, 2015, 21, 21-46.	0.8	15
40	Gene networks, occlusal clocks, and functional patches: new understanding of pattern and process in the evolution of the dentition. Odontology / the Society of the Nippon Dental University, 2015, 103, 117-125.	0.9	12
41	Evolution of the snake body form reveals homoplasy in amniote Hox gene function. Nature, 2015, 520, 86-89.	13.7	133
42	The Fossil Calibration Databaseâ€"A New Resource for Divergence Dating. Systematic Biology, 2015, 64, 853-859.	2.7	54
43	Adaptive radiation of damselfishes (Perciformes, Pomacentridae) in the eastern Pacific. Marine Biology, 2015, 162, 2291-2303.	0.7	6
44	Extinction, Extirpation, and Exotics: Effects on the Correlation between Traits and Environment at the Continental Level. Annales Zoologici Fennici, 2014, 51, 209-226.	0.2	32
45	Trait-based extinction catches the Red Queen napping during the Cambrian. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16240-16241.	3.3	1
46	The macroevolutionary consequences of phenotypic integration: from development to deep time. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130254.	1.8	274
47	A reevaluation of the Harrodsburg Crevice fauna (late Pleistocene of Indiana, U.S.A.) and the climatic implications of its mammals. Journal of Vertebrate Paleontology, 2013, 33, 410-420.	0.4	8
48	No known hominin species matches the expected dental morphology of the last common ancestor of Neanderthals and modern humans. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18196-18201.	3.3	52
49	Larger mammals have longer faces because of size-related constraints on skull form. Nature Communications, 2013, 4, 2458.	5.8	160
50	From card catalogs to computers: databases in vertebrate paleontology. Journal of Vertebrate Paleontology, 2013, 33, 13-28.	0.4	41
51	Mammal disparity decreases during the Cretaceous angiosperm radiation. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20132110.	1.2	62
52	Stuck between the teeth. Nature, 2013, 497, 325-326.	13.7	2
53	Environmental, trophic, and ecological factors influencing bone collagen Î´2H. Geochimica Et Cosmochimica Acta, 2013, 111, 88-104.	1.6	27
54	Phenotypic Variation across Chromosomal Hybrid Zones of the Common Shrew (Sorex araneus) Indicates Reduced Gene Flow. PLoS ONE, 2013, 8, e67455.	1.1	25

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55	Evaluating the Significance of Paleophylogeographic Species Distribution Models in Reconstructing Quaternary Range-Shifts of Nearctic Chelonians. PLoS ONE, 2013, 8, e72855.	1.1	54
56	Climate and Competition Shape Species' Borders: A Study of the Panamint (Crotalus stephensi) and Speckled (Crotalus mitchellii) Rattlesnakes. ISRN Zoology, 2012, 2012, 1-6.	0.5	4
57	Measuring the evolution of body size in mammals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4027-4028.	3.3	4
58	Movement adds bite to the evolutionary morphology of mammalian teeth. BMC Biology, 2012, 10, 69.	1.7	4
59	The Ecology of Morphology: The Ecometrics of Locomotion and Macroenvironment in North American Snakes. , 2012, , 117-146.		52
60	MORPHOLOGICAL INTEGRATION IN THE HOMININ DENTITION: EVOLUTIONARY, DEVELOPMENTAL, AND FUNCTIONAL FACTORS. Evolution; International Journal of Organic Evolution, 2012, 66, 1024-1043.	1.1	86
61	Shape, variance and integration during craniogenesis: contrasting marsupial and placental mammals. Journal of Evolutionary Biology, 2012, 25, 862-872.	0.8	52
62	Influence of atrypid morphological shape on Devonian episkeletobiont assemblages from the lower Genshaw formation of the Traverse Group of Michigan: A geometric morphometric approach. Palaeogeography, Palaeoclimatology, Palaeoecology, 2011, 310, 427-441.	1.0	28
63	Mammal Associations in the Pleistocene of Britain: Implications of Ecological Niche Modelling and a Method for Reconstructing Palaeoclimate. Developments in Quaternary Sciences, 2011, , 279-304.	0.1	30
64	Stops making sense: translational trade-offs and stop codon reassignment. BMC Evolutionary Biology, 2011, 11, 227.	3.2	10
65	Pleistocene Climate, Phylogeny, and Climate Envelope Models: An Integrative Approach to Better Understand Species' Response to Climate Change. PLoS ONE, 2011, 6, e28554.	1.1	84
66	History matters: ecometrics and integrative climate change biology. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 1131-1140.	1.2	81
67	Ecometrics: The traits that bind the past and present together. Integrative Zoology, 2010, 5, 88-101.	1.3	83
68	Geometric morphometrics: recent applications to the study of evolution and development. Journal of Zoology, 2010, 280, 1-7.	0.8	148
69	Methods for Studying Morphological Integration and Modularity. The Paleontological Society Papers, 2010, 16, 213-243.	0.8	88
70	Tiptoeing through the trophics: geographic variation in carnivoran locomotor ecomorphology in relation to environment. , 2010, , 374-410.		61
71	ECOLOGICAL INTERACTIONS BETWEEN RHIPIDOMELLA (ORTHIDES, BRACHIOPODA) AND ITS ENDOSKELETOBIONTS AND PREDATORS FROM THE MIDDLE DEVONIAN DUNDEE FORMATION OF OHIO, UNITED STATES. Palaios, 2010, 25, 196-208.	0.6	11
72	Climate and morphological change on decadal scales: Multiannual variation in the common shrew Sorex araneus in northeast Russia. Acta Theriologica, 2010, 55, 193-202.	1.1	10

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73	Biogeographic Analysis Using Geometric Morphometrics: Clines in Skull Size and Shape in a Widespread African Arboreal Monkey. Lecture Notes in Earth Sciences, 2010, , 191-217.	0.5	24
74	The Influence of Modularity on Cranial Morphological Disparity in Carnivora and Primates (Mammalia). PLoS ONE, 2010, 5, e9517.	1.1	201
75	Giant boid snake from the Palaeocene neotropics reveals hotter past equatorial temperatures. Nature, 2009, 457, 715-717.	13.7	179
76	Head et al. reply. Nature, 2009, 460, E4-E5.	13.7	3
77	Detecting biological distinctiveness using geometric morphometrics: an example case from the Vancouver Island marmot. Ethology Ecology and Evolution, 2009, 21, 209-223.	0.6	37
78	Developmental Dynamics and G-Matrices: Can Morphometric Spaces be Used to Model Phenotypic Evolution?. Evolutionary Biology, 2008, 35, 83-96.	0.5	109
79	Adaptive Zones and the Pinniped Ankle: A Three-Dimensional Quantitative Analysis of Carnivoran Tarsal Evolution. , 2008, , 167-196.		63
80	Of mice and mutations: Phenotypic effects of the diabetic db/db and ob/ob mutations on the skull and teeth of mice. European Archives of Paediatric Dentistry: Official Journal of the European Academy of Paediatric Dentistry, 2008, 9, 37-40.	0.7	18
81	Dissociation of somatic growth from segmentation drives gigantism in snakes. Biology Letters, 2007, 3, 296-298.	1.0	39
82	Multigenic and morphometric differentiation of ground squirrels (Spermophilus, Scuiridae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Tc 43, 916-935.	1.2	109
83	Development with a bite. Nature, 2007, 449, 413-414.	13.7	73
84	Evolutionary acceleration in the most endangered mammal of Canada: speciation and divergence in the Vancouver Island marmot (Rodentia, Sciuridae). Journal of Evolutionary Biology, 2007, 20, 1833-1846.	0.8	30
85	SELECTION IN A CYCLING POPULATION: DIFFERENTIAL RESPONSE AMONG SKELETAL TRAITS. Evolution; International Journal of Organic Evolution, 2006, 60, 1925-1935.	1.1	23
86	Response to environmental factors and competition: skull, mandible and tooth shapes in Polish water shrews (Neomys, Soricidae, Mammalia). Journal of Zoological Systematics and Evolutionary Research, 2006, 44, 339-351.	0.6	38
87	EARLIEST KNOWN CARNIVORAN AUDITORY BULLA AND SUPPORT FOR A RECENT ORIGIN OF CROWN-GROUP CARNIVORA (EUTHERIA, MAMMALIA). Palaeontology, 2006, 49, 1019-1027.	1.0	28
88	Evolutionary studies: Genetics, development, and palaeontology interlock. Heredity, 2006, 96, 206-207.	1.2	1
89	SELECTION IN A CYCLING POPULATION: DIFFERENTIAL RESPONSE AMONG SKELETAL TRAITS. Evolution; International Journal of Organic Evolution, 2006, 60, 1925.	1.1	0
90	Selection in a cycling population: differential response among skeletal traits. Evolution; International Journal of Organic Evolution, 2006, 60, 1925-35.	1.1	7

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91	Development and phenotypic correlations: the evolution of tooth shape in Sorex araneus. Evolution & Development, 2005, 7, 29-41.	1.1	64
92	PHYLOGENETIC AND ENVIRONMENTAL COMPONENTS OF MORPHOLOGICAL VARIATION: SKULL, MANDIBLE, AND MOLAR SHAPE IN MARMOTS (MARMOTA, RODENTIA). Evolution; International Journal of Organic Evolution, 2005, 59, 2460-2472.	1.1	206
93	On the Occlusal Fit of Tribosphenic Molars: Are We Underestimating Species Diversity in the Mesozoic?. Journal of Mammalian Evolution, 2005, 12, 283-299.	1.0	26
94	PHYLOGENETIC AND ENVIRONMENTAL COMPONENTS OF MORPHOLOGICAL VARIATION: SKULL, MANDIBLE, AND MOLAR SHAPE IN MARMOTS (MARMOTA, RODENTIA). Evolution; International Journal of Organic Evolution, 2005, 59, 2460.	1.1	139
95	Phylogenetic and environmental components of morphological variation: skull, mandible, and molar shape in marmots (Marmota, Rodentia). Evolution; International Journal of Organic Evolution, 2005, 59, 2460-72.	1.1	40
96	Maximum-likelihood identification of fossils: taxonomic identification of Quaternary marmots (Rodentia, Mammalia) and identification of vertebral position in the pipesnake Cylindrophis (Serpentes,) Tj ETQq0 0 0 rgBT /Overlock 10	1.3	15
97	Paleophylogeography of Sorex araneus (Insectivora, Soricidae): molar shape as a morphological marker for fossil shrews. Mammalia, 2003, 67, 233-244.	0.3	34
98	PALEOPHYLOGEOGRAPHY: THE TEMPO OF GEOGRAPHIC DIFFERENTIATION IN MARMOTS (MARMOTA). Journal of Mammalogy, 2003, 84, 369-384.	0.6	84
99	SMALL VERTEBRATES FROM THE LATE CRETACEOUS AND EARLY TERTIARY OF THE NORTHEASTERN ARAL SEA REGION, KAZAKHSTAN. Journal of Paleontology, 2001, 75, 390-400.	0.5	18
100	Paleontology and the Comparative Method: Ancestral Node Reconstructions versus Observed Node Values. American Naturalist, 2001, 157, 596-609.	1.0	100
101	Small vertebrates from the late Cretaceous and early Tertiary of the northeastern Aral Sea region, Kazakhstan. Journal of Paleontology, 2001, 75, 390-400.	0.5	18
102	On morphological clocks and paleophylogeography: towards a timescale for Sorex hybrid zones. Genetica, 2001, 112/113, 339-357.	0.5	70
103	On morphological clocks and paleophylogeography: Towards a timescale for Sorex hybrid zones. Contemporary Issues in Genetics and Evolution, 2001, , 339-357.	0.9	22
104	On morphological clocks and paleophylogeography: towards a timescale for Sorex hybrid zones. Genetica, 2001, 112-113, 339-57.	0.5	16
105	The Evolution of Enamel Microstructure: How Important Is Amelogenin?. , 2000, 7, 23-42.		13
106	Development and evolution occlude: Evolution of development in mammalian teeth. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 14019-14021.	3.3	19
107	Variability in mammalian dentitions: size-related bias in the coefficient of variation. Biological Journal of the Linnean Society, 1998, 64, 83-99.	0.7	56
108	Variability, selection, and constraints: development and evolution in viverravid (Carnivora,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td (	1.3	57

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109	Cope's Rule. , 1998, 282, 47f-47.		28
110	The skeleton ofGazinocyon vulpeculusgen. et comb. nov. and the cladistic relationships of Hyaenodontidae (Eutheria, Mammalia). Journal of Vertebrate Paleontology, 1996, 16, 303-319.	0.4	66
111	Cladistics and the Fossil Record: The Uses of History. Annual Review of Earth and Planetary Sciences, 1994, 22, 63-89.	4.6	30
112	Differential sexual dimorphism: size and shape in the cranium and pelvis of grey foxes (Urocyon). Biological Journal of the Linnean Society, 0, 96, 339-353.	0.7	37
113	The influence of character correlations on phylogenetic analyses: a case study of the carnivoran cranium. , 0, , 141-164.		21
114	Marmot evolution and global change in the past 10 million years. , 0, , 246-276.		7