Duncan J Irschick

List of Publications by Year
in descending order

88 papers	5,357 citations	87888 38 h-index	88630 70 g-index
100 all docs	100 docs citations	100 times ranked	4201 citing authors

#	Article	IF	Citations
1	Integrating Function and Ecology in Studies of Adaptation: Investigations of Locomotor Capacity as a Model System. Annual Review of Ecology, Evolution, and Systematics, 2001, 32, 367-396.	6.7	394
2	A comparative analysis of clinging ability among pad-bearing lizards. Biological Journal of the Linnean Society, 1996, 59, 21-35.	1.6	325
3	Looking Beyond Fibrillar Features to Scale Geckoâ€Like Adhesion. Advanced Materials, 2012, 24, 1078-1083.	21.0	243
4	A COMPARATIVE ANALYSIS OF THE ECOLOGICAL SIGNIFICANCE OF MAXIMAL LOCOMOTOR PERFORMANCE IN CARIBBEAN ANOLIS LIZARDS. Evolution; International Journal of Organic Evolution, 1998, 52, 219-226.	2.3	240
5	Performance capacity, fighting tactics and the evolution of lifeâ€“stage male morphs in the green anole lizard (Anolis carolinensis). Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 2501-2508.	2.6	226
6	Do Lizards Avoid Habitats in Which Performance Is Submaximal? The Relationship between Sprinting Capabilities and Structural Habitat Use in Caribbean Anoles. American Naturalist, 1999, 154, 293-305.	2.1	218
7	A functional perspective on sexual selection: insights and future prospects. Animal Behaviour, 2006, 72, 263-273.	1.9	198
8	Allometry of behavior. Trends in Ecology and Evolution, 2008, 23, 394-401.	8.7	174
9	A COMPARISON OF EVOLUTIONARY RADIATIONS IN MAINLAND AND CARIBBEANANOLISLIZARDS. Ecology, 1997, 78, 2191-2203.	3.2	165
10	Ecosystem Function and Services of Aquatic Predators in the Anthropocene. Trends in Ecology and Evolution, 2019, 34, 369-383.	8.7	143
11	Measuring Performance in Nature: Implications for Studies of Fitness Within Populations. Integrative and Comparative Biology, 2003, 43, 396-407.	2.0	140
12	The Evolution of Performanceâ€Based Male Fighting Ability in CaribbeanAnolisLizards. American Naturalist, 2007, 170, 573-586.	2.1	126
13	Creating Geckoâ€Like Adhesives for â€œReal Worldâ€•Surfaces. Advanced Materials, 2014, 26, 4345-4351.	21.0	112
14	A comparison of habitat use, morphology, clinging performance and escape behaviour among two divergent green anole lizard (Anolis carolinensis) populations. Biological Journal of the Linnean Society, 2005, 85, 223-234.	1.6	111
15	ADAPTATION AND CONSTRAINT IN THE EVOLUTION OF SPECIALIZATION OF BAHAMIAN ANOLIS LIZARDS. Evolution; International Journal of Organic Evolution, 1994, 48, 1786-1798.	2.3	108
16	LOCOMOTOR COMPENSATION CREATES A MISMATCH BETWEEN LABORATORY AND FIELD ESTIMATES OF ESCAPE SPEED IN LIZARDS: A CAUTIONARY TALE FOR PERFORMANCE-TO-FITNESS STUDIES. Evolution; International Journal of Organic Evolution, 2005, 59, 1579-1587.	2.3	107
17	Ecological consequences of ontogenetic changes in head shape and bite performance in the Jamaican lizardAnolisâ€ƒlineatopus. Biological Journal of the Linnean Society, 2006, 89, 443-454.	1.6	102
18	A Comparative Analysis of the Ecological Significance of Maximal Locomotor Performance in Caribbean Anolis Lizards. Evolution; International Journal of Organic Evolution, 1998, 52, 219.	2.3	101

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19	Sexual dimorphism in head shape and diet in the cottonmouth snake (Agkistrodon piscivorus). Journal of Zoology, 2004, 264, 53-59.	1.7	101
20	Evolutionary conservatism and convergence both lead to striking similarity in ecology, morphology and performance across continents in frogs. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20132156.	2.6	94
21	Extreme positive allometry of animal adhesive pads and the size limits of adhesion-based climbing. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1297-1302.	7.1	92
22	A functional approach to sexual selection. Functional Ecology, 2007, 21, 621-626.	3.6	91
23	Evolutionary Approaches for Studying Functional Morphology: Examples from Studies of Performance Capacity. Integrative and Comparative Biology, 2002, 42, 278-290.	2.0	76
24	Estimating body mass of freeâ€living whales using aerial photogrammetry and 3D volumetrics. Methods in Ecology and Evolution, 2019, 10, 2034-2044.	5.2	75
25	Intraspecific correlations among morphology, performance and habitat use within a green anole lizard (Anolis carolinensis) population. Biological Journal of the Linnean Society, 2005, 85, 211-221.	1.6	74
26	THE QUICK AND THE FAST: THE EVOLUTION OF ACCELERATION CAPACITY IN ANOLIS LIZARDS. Evolution; International Journal of Organic Evolution, 2006, 60, 2137-2147.	2.3	69
27	Evolutionary theory as a tool for predicting extinction risk. Trends in Ecology and Evolution, 2015, 30, 61-65.	8.7	64
28	Effects of loading and size on maximum power output and gait characteristics in geckos. Journal of Experimental Biology, 2003, 206, 3923-3934.	1.7	59
29	The relationship between dewlap size and performance changes with age and sex in a Green Anole (Anolis carolinensis) lizard population. Behavioral Ecology and Sociobiology, 2005, 59, 157-165.	1.4	56
30	Rapid shifts in the chemical composition of aspen forests: an introduced herbivore as an agent of natural selection. Biological Invasions, 2007, 9, 715-722.	2.4	56
31	ALTERNATE PATHWAYS OF BODY SHAPE EVOLUTION TRANSLATE INTO COMMON PATTERNS OF LOCOMOTOR EVOLUTION IN TWO CLADES OF LIZARDS. Evolution; International Journal of Organic Evolution, 2010, 64, 1569-1582.	2.3	53
32	Anatomical Basis of Differences in Locomotor Behavior in Anolis Lizards: A Comparison Between Two Ecomorphs. Bulletin of the Museum of Comparative Zoology, 2008, 159, 213-238.	1.7	52
33	Whole-organism studies of adhesion in pad-bearing lizards: creative evolutionary solutions to functional problems. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2006, 192, 1169-1177.	1.6	46
34	An analysis of the relative roles of plasticity and natural selection in the morphology and performance of a lizard (Urosaurus ornatus). Oecologia, 2007, 153, 489-499.	2.0	45
35	Out on a limb: the differential effect of substrate diameter on acceleration capacity in Anolis lizards. Journal of Experimental Biology, 2006, 209, 4515-4523.	1.7	44
36	VERTEBRAL EVOLUTION AND THE DIVERSIFICATION OF SQUAMATE REPTILES. Evolution; International Journal of Organic Evolution, 2012, 66, 1044-1058.	2.3	44

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37	Are morphology-performance relationships invariant across different seasons? A test with the green anole lizard (Anolis carolinensis). Oikos, 2006, 114, 49-59.	2.7	43
38	No Evidence for Female Association with High-Performance males in the Green Anole Lizard, Anolis carolinensis. Ethology, 2006, 112, 707-715.	1.1	42
39	Linking ecomechanical models and functional traits to understand phenotypic diversity. Trends in Ecology and Evolution, 2021, 36, 860-873.	8.7	41
40	Foils of flexion: the effects of perch compliance on lizard locomotion and perch choice in the wild. Functional Ecology, 2013, 27, 374-381.	3.6	40
41	An experimental test of the effect of signal size and performance capacity on dominance in the green anole lizard. Functional Ecology, 2012, 26, 3-10.	3.6	38
42	Morphological scaling of body form in four shark species differing in ecology and life history. Biological Journal of the Linnean Society, 2015, 114, 126-135.	1.6	38
43	HAVE MALE AND FEMALE GENITALIA COEVOLVED? A PHYLOGENETIC ANALYSIS OF GENITALIC MORPHOLOGY AND SEXUAL SIZE DIMORPHISM IN WEB-BUILDING SPIDERS (ARANEAE: ARANEOIDEA). Evolution; International Journal of Organic Evolution, 2005, 59, 1989-1999.	2.3	36
44	Ontogeny of head and caudal fin shape of an apex marine predator: The tiger shark (<scp>G</scp>aleocerdo cuvier). Journal of Morphology, 2016, 277, 556-564.	1.2	34
45	Determinants of sexual differences in escape behavior in lizards of the genus Anolis: a comparative approach. Integrative and Comparative Biology, 2007, 47, 200-210.	2.0	31
46	Trait compensation between boldness and the propensity for tail autotomy under different food availabilities in similarly aged brown anole lizards. Functional Ecology, 2015, 29, 385-392.	3.6	31
47	Geckos as Springs: Mechanics Explain Across-Species Scaling of Adhesion. PLoS ONE, 2015, 10, e0134604.	2.5	30
48	An Analysis of Inter-Population Divergence in Visual Display Behavior of the Green Anole Lizard (Anolis carolinensis). Ethology, 2006, 112, 370-378.	1.1	29
49	New Directions for Studying Selection in Nature: Studies of Performance and Communities. Physiological and Biochemical Zoology, 2007, 80, 557-567.	1.5	29
50	Body condition predicts energy stores in apex predatory sharks. , 2014, 2, cou022-cou022.		29
51	DIRECTIONAL EVOLUTION OF STOCKINESS COEVOLVES WITH ECOLOGY AND LOCOMOTION IN LIZARDS. Evolution; International Journal of Organic Evolution, 2009, 63, 215-227.	2.3	28
52	Hormonal regulation of whole-animal performance: Implications for selection. Integrative and Comparative Biology, 2009, 49, 349-353.	2.0	26
53	A comparative analysis of clinging ability among pad-bearing lizards. Biological Journal of the Linnean Society, 1996, 59, 21-35.	1.6	26
54	Evo-devo beyond morphology: from genes to resource use. Trends in Ecology and Evolution, 2013, 28, 267-273.	8.7	25

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55	A comparative morphological analysis of body and fin shape for eight shark species. Biological Journal of the Linnean Society, 2017, 122, 589-604.	1.6	24
56	Developmental plasticity affects sexual size dimorphism in an anole lizard. Functional Ecology, 2016, 30, 235-243.	3.6	23
57	Locomotor compensation creates a mismatch between laboratory and field estimates of escape speed in lizards: a cautionary tale for performance-to-fitness studies. Evolution; International Journal of Organic Evolution, 2005, 59, 1579-87.	2.3	21
58	The contributions of evolutionary divergence and phenotypic plasticity to geographic variation in the western fence lizard, Sceloporus occidentalis. Biological Journal of the Linnean Society, 0, 99, 84-98.	1.6	20
59	Do Displays Send Information about Ornament Structure and Male Quality in the Ornate Tree Lizard, Urosaurus ornatus?. Ethology, 2007, 113, 1113-1122.	1.1	19
60	Ageâ€Specific Forced Polymorphism: Implications of Ontogenetic Changes in Morphology for Male Mating Tactics. Physiological and Biochemical Zoology, 2006, 79, 73-82.	1.5	16
61	Steroid use and human performance: Lessons for integrative biologists. Integrative and Comparative Biology, 2009, 49, 354-364.	2.0	15
62	Creation of accurate 3D models of harbor porpoises (Phocoena phocoena) using 3D photogrammetry. Marine Mammal Science, 2021, 37, 482-491.	1.8	15
63	The role of bite force in the evolution of head shape and head shape dimorphism in Anolis lizards. Functional Ecology, 2019, 33, 2191-2202.	3.6	11
64	Do the relationships between hind limb anatomy and sprint speed variation differ between sexes inAnolislizards?. Journal of Experimental Biology, 2019, 222, .	1.7	11
65	Ontogenetic scaling patterns of lizard skin surface structure as revealed by gelâ€based stereoâ€profilometry. Journal of Anatomy, 2019, 235, 346-356.	1.5	10
66	The relationship between habitat use and body shape in geckos. Journal of Morphology, 2019, 280, 722-730.	1.2	10
67	Genital morphology associated with mating strategy in the polymorphic lizard, Uta stansburiana. Journal of Morphology, 2019, 280, 184-192.	1.2	9
68	Locomotion and palaeoclimate explain the re-evolution of quadrupedal body form inBrachymeleslizards. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201994.	2.6	9
69	Functional ecology: integrative research in the modern age of ecology. Functional Ecology, 2013, 27, 1-4.	3.6	8
70	Does whole-organism performance constrain resource use? A community test with desert lizards. Biological Journal of the Linnean Society, 2015, 115, 859-868.	1.6	8
71	Bite performance and feeding behaviour of the sand tiger shark Carcharias taurus. Journal of Fish Biology, 2019, 95, 881-892.	1.6	7
72	Ecology drives natural variation in an extreme antipredator trait: a costâ€“benefit analysis integrating modelling and field data. Functional Ecology, 2016, 30, 953-963.	3.6	5

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73	Opsin gene expression regulated by testosterone level in a sexually dimorphic lizard. Scientific Reports, 2018, 8, 16055.	3.3	5
74	Quantifying surface topography of biological systems from 3D scans. Methods in Ecology and Evolution, 2021, 12, 1265-1276.	5.2	5
75	Biomimetics: Looking Beyond Fibrillar Features to Scale Gecko-Like Adhesion (Adv. Mater. 8/2012). Advanced Materials, 2012, 24, 994-994.	21.0	4
76	High strength reversible adhesive closures. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1783-1790.	2.1	4
77	Dental morphology and microstructure of the Prickly Dogfish Oxynotus bruniensis (Squaliformes:) Tj ETQq1 1 0.784314 rgBT /Overlock	1.5	4
78	Field-Based Feeding Performance and Kinematics of Bull Sharks, Carcharhinus leucas (Carcharhiniformes: Carcharhinidae). Ichthyology and Herpetology, 2021, 109, .	0.8	4
79	THE QUICK AND THE FAST: THE EVOLUTION OF ACCELERATION CAPACITY IN ANOLIS LIZARDS. Evolution; International Journal of Organic Evolution, 2006, 60, 2137.	2.3	3
80	Using <scp>3D</scp>â€digital photogrammetry to examine scaling of the body axis in burrowing skinks. Journal of Morphology, 2020, 281, 1382-1390.	1.2	3
81	Functional ecology: the evolution of an ecological journal. Functional Ecology, 2015, 29, 1-2.	3.6	2
82	Hemipenis shape and hindlimb size are highly correlated in Anolis lizards. Biological Journal of the Linnean Society, 2017, , .	1.6	2
83	Observation of a Sea Lamprey, Petromyzon marinus, on a Pelagic Blue Shark, Prionace glauca. Northeastern Naturalist, 2020, 27, .	0.3	2
84	I.4 Functional Morphology: Muscles, Elastic Mechanisms, and Animal Performance. , 2009, , 27-37.		1
85	Functional ecology: moving forward into a new era of publishing. Functional Ecology, 2014, 28, 291-292.	3.6	1
86	One size does not always fit all: a reply to Stroud and Feeley. Trends in Ecology and Evolution, 2015, 30, 297-298.	8.7	0
87	30ÂYears of Functional Ecology. Functional Ecology, 2017, 31, 4-6.	3.6	0
88	Thermal tolerance and Hsp70 expression in the Western fence lizard, Sceloporus occidentalis : Geographic variation in measures of acute stress and their role in selection on sprint speeds.. FASEB Journal, 2009, 23, LB121.	0.5	0