Mark W Denny

List of Publications by Year
in descending order

95 papers	7,611 citations	71102 41 h-index	64796 79 g-index
99 all docs	99 docs citations	99 times ranked	6013 citing authors

#	Article	IF	Citations
1	Physiological Consequences of Oceanic Environmental Variation: Life from a Pelagic Organism's Perspective. Annual Review of Marine Science, 2022, 14, 25-48.	11.6	6
2	The limits of convergence in the collective behavior of competing marine taxa. Ecology and Evolution, 2022, 12, e8747.	1.9	5
3	Rapid Range Expansion of a Marine Ectotherm Reveals the Demographic and Ecological Consequences of Short-Term Variability in Seawater Temperature and Dissolved Oxygen. American Naturalist, 2022, 199, 523-550.	2.1	11
4	Effects of heat acclimation on cardiac function in the intertidal mussel <i>Mytilus californianus</i>: can laboratory-based indices predict survival in the field?. Journal of Experimental Biology, 2022, 225, .	1.7	5
5	Wave-Energy Dissipation: Seaweeds and Marine Plants Are Ecosystem Engineers. Fluids, 2021, 6, 151.	1.7	8
6	Bivalves rapidly repair shells damaged by fatigue and bolster strength. Journal of Experimental Biology, 2021, 224, .	1.7	6
7	Wave Dissipation by Bottom Friction on the Inner Shelf of a Rocky Shore. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015963.	2.6	11
8	Mussels' acclimatization to high, variable temperatures is lost slowly upon transfer to benign conditions. Journal of Experimental Biology, 2020, 223, .	1.7	16
9	Mechanical fatigue fractures bivalve shells. Journal of Experimental Biology, 2020, 223, .	1.7	4
10	Establishing typical values for hemocyte mortality in individual California mussels, Mytilus californianus. Fish and Shellfish Immunology, 2020, 100, 70-79.	3.6	4
11	Longâ€term mechanistic hindcasts predict the structure of experimentallyâ€warmed intertidal communities. Oikos, 2020, 129, 1645-1656.	2.7	4
12	A series of unfortunate events: characterizing the contingent nature of physiological extremes using long-term environmental records. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20192333.	2.6	31
13	A single heat-stress bout induces rapid and prolonged heat acclimation in the California mussel,<i>Mytilus californianus</i>. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20202561.	2.6	17
14	Establishing typical values for hemocyte mortality in individual mussels (Mytilus californianus) using fluorescenceâ€activated cell sorting. FASEB Journal, 2020, 34, 1-1.	0.5	0
15	Impact of heating rate on cardiac thermal tolerance in the California mussel, <i>Mytilus californianus</i>. Journal of Experimental Biology, 2019, 222, .	1.7	28
16	Performance in a variable world: using Jensenâ€™s inequality to scale up from individuals to populations. , 2019, 7, coz053.		27
17	Sensory perception plays a larger role in foraging efficiency than heavy-tailed movement strategies. Ecological Modelling, 2019, 404, 69-82.	2.5	8
18	PISCO: Advances Made Through the Formation of a Large-Scale, Long-Term Consortium for Integrated Understanding of Coastal Ecosystem Dynamics. Oceanography, 2019, 32, 16-25.	1.0	7

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19	Survival in spatially variable thermal environments: Consequences of induced thermal defense. Integrative Zoology, 2018, 13, 392-410.	2.6	8
20	The importance of wave exposure on the structural integrity of rhodoliths. Journal of Experimental Marine Biology and Ecology, 2018, 503, 109-119.	1.5	19
21	The fallacy of the average: on the ubiquity, utility and continuing novelty of Jensen's inequality. Journal of Experimental Biology, 2017, 220, 139-146.	1.7	132
22	John Moffit Gosline, BA, PhD, FRSC (1943â€“2016). Journal of Experimental Biology, 2017, 220, 334-335.	1.7	0
23	â€œInternal tide poolsâ€•prolong kelp forest hypoxic events. Limnology and Oceanography, 2017, 62, 2864-2878.	3.1	15
24	The extraordinary joint material of an articulated coralline alga. II. Modeling the structural basis of its mechanical properties. Journal of Experimental Biology, 2016, 219, 1843-1850.	1.7	9
25	Life in an extreme environment: Characterizing wave-imposed forces in the rocky intertidal zone using high temporal resolution hydrodynamic measurements. Limnology and Oceanography, 2016, 61, 1750-1761.	3.1	11
26	Long-term, high frequency in situ measurements of intertidal mussel bed temperatures using biomimetic sensors. Scientific Data, 2016, 3, 160087.	5.3	69
27	The extraordinary joint material of an articulated coralline alga. I. Mechanical characterization of a key adaptation. Journal of Experimental Biology, 2016, 219, 1833-1842.	1.7	8
28	Quantifying the top-down effects of grazers on a rocky shore: selective grazing and the potential for competition. Marine Ecology - Progress Series, 2016, 553, 49-66.	1.9	3
29	Thermal variation, thermal extremes and the physiological performance of individuals. Journal of Experimental Biology, 2015, 218, 1956-1967.	1.7	196
30	Experimental determination of the hydrodynamic forces responsible for wave impact events. Journal of Experimental Marine Biology and Ecology, 2015, 469, 123-130.	1.5	10
31	Warm microhabitats drive both increased respiration and growth rates of intertidal consumers. Marine Ecology - Progress Series, 2015, 522, 127-143.	1.9	23
32	United We Fail: Group <i>versus</i> Individual Strength in the California Sea Mussel, <i>Mytilus californianus</i>. Biological Bulletin, 2014, 227, 61-67.	1.8	5
33	Indefatigable: an erect coralline alga is highly resistant to fatigue. Journal of Experimental Biology, 2013, 216, 3772-3780.	1.7	22
34	Interaction of waves and currents with kelp forests (Macrocystis pyrifera): Insights from a dynamically scaled laboratory model. Limnology and Oceanography, 2013, 58, 790-802.	3.1	34
35	Biophysics, bioenergetics and mechanistic approaches to ecology. Journal of Experimental Biology, 2012, 215, 871-871.	1.7	7
36	Biophysics, environmental stochasticity, and the evolution of thermal safety margins in intertidal limpets. Journal of Experimental Biology, 2012, 215, 934-947.	1.7	43

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37	Scaling Up in Ecology: Mechanistic Approaches. Annual Review of Ecology, Evolution, and Systematics, 2012, 43, 1-22.	8.3	50
38	Natural intrusions of hypoxic, low pH water into nearshore marine environments on the California coast. Continental Shelf Research, 2012, 45, 108-115.	1.8	107
39	The fine art of surfacing: Its efficacy in broadcast spawning. Journal of Theoretical Biology, 2012, 294, 40-47.	1.7	5
40	Anchor Ice and Benthic Disturbance in Shallow Antarctic Waters: Interspecific Variation in Initiation and Propagation of Ice Crystals. Biological Bulletin, 2011, 221, 155-163.	1.8	35
41	An inexpensive instrument for measuring wave exposure and water velocity. Limnology and Oceanography: Methods, 2011, 9, 204-214.	2.0	12
42	Importance of Behavior and Morphological Traits for Controlling Body Temperature in Littorinid Snails. Biological Bulletin, 2011, 220, 209-223.	1.8	67
43	Spreading the risk: Small-scale body temperature variation among intertidal organisms and its implications for species persistence. Journal of Experimental Marine Biology and Ecology, 2011, 400, 175-190.	1.5	176
44	Grand Opportunities: Strategies for Addressing Grand Challenges in Organismal Animal Biology. Integrative and Comparative Biology, 2011, 51, 7-13.	2.0	8
45	Failure by fatigue in the field: a model of fatigue breakage for the macroalga Mazzaella, with validation. Journal of Experimental Biology, 2011, 214, 1571-1585.	1.7	26
46	Preference Versus Performance: Body Temperature of the Intertidal Snail Chlorostoma funebralis. Biological Bulletin, 2011, 220, 107-117.	1.8	27
47	Diatom sinkings speeds: Improved predictions and insight from a modified Stokes' law. Limnology and Oceanography, 2010, 55, 2513-2525.	3.1	111
48	Organismal climatology: analyzing environmental variability at scales relevant to physiological stress. Journal of Experimental Biology, 2010, 213, 995-1003.	1.7	185
49	Currents and turbulence within a kelp forest (<i>Macrocystis pyrifera</i>): Insights from a dynamically scaled laboratory model. Limnology and Oceanography, 2010, 55, 1145-1158.	3.1	34
50	Marine Ecomechanics. Annual Review of Marine Science, 2010, 2, 89-114.	11.6	83
51	On the prediction of extreme ecological events. Ecological Monographs, 2009, 79, 397-421.	5.4	136
52	Discovery of Lignin in Seaweed Reveals Convergent Evolution of Cell-Wall Architecture. Current Biology, 2009, 19, 169-175.	3.9	371
53	Thermal stress and morphological adaptations in limpets. Functional Ecology, 2009, 23, 292-301.	3.6	72
54	The role of temperature and desiccation stress in limiting the localâ€scale distribution of the owl limpet, <i>Lottia gigantea</i>. Functional Ecology, 2009, 23, 756-767.	3.6	115

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55	Can the giant snake predict palaeoclimate?. Nature, 2009, 460, E3-E4.	27.8	3
56	Confronting the physiological bottleneck: A challenge from ecomechanics. Integrative and Comparative Biology, 2009, 49, 197-201.	2.0	68
57	DESICCATION PROTECTION AND DISRUPTION: A TRADEâ€OFF FOR AN INTERTIDAL MARINE ALGA¹. Journal of Phycology, 2008, 44, 1164-1170.	2.3	34
58	Flow Forces on Seaweeds: Field Evidence for Roles of Wave Impingement and Organism Inertia. Biological Bulletin, 2008, 215, 295-308.	1.8	50
59	Limits to running speed in dogs, horses and humans. Journal of Experimental Biology, 2008, 211, 3836-3849.	1.7	67
60	The Intrigue of the Interface. Science, 2008, 320, 886-886.	12.6	18
61	To break a coralline: mechanical constraints on the size and survival of a wave-swept seaweed. Journal of Experimental Biology, 2008, 211, 3433-3441.	1.7	40
62	To bend a coralline: effect of joint morphology on flexibility and stress amplification in an articulated calcified seaweed. Journal of Experimental Biology, 2008, 211, 3421-3432.	1.7	29
63	Hydrodynamic forces and surface topography: Centimeter-scale spatial variation in wave forces. Limnology and Oceanography, 2008, 53, 579-588.	3.1	29
64	Techniques for predicting the lifetimes of wave-swept macroalgae: a primer on fracture mechanics and crack growth. Journal of Experimental Biology, 2007, 210, 2213-2230.	1.7	31
65	Death by small forces: a fracture and fatigue analysis of wave-swept macroalgae. Journal of Experimental Biology, 2007, 210, 2231-2243.	1.7	36
66	Ocean waves, nearshore ecology, and natural selection. Aquatic Ecology, 2006, 40, 439-461.	1.5	66
67	Hot limpets: predicting body temperature in a conductance-mediated thermal system. Journal of Experimental Biology, 2006, 209, 2409-2419.	1.7	95
68	Jet propulsion in the cold: mechanics of swimming in the Antarctic scallop Adamussium colbecki. Journal of Experimental Biology, 2006, 209, 4503-4514.	1.7	47
69	Thermal stress on intertidal limpets: long-term hindcasts and lethal limits. Journal of Experimental Biology, 2006, 209, 2420-2431.	1.7	85
70	QUANTIFYING SCALE IN ECOLOGY: LESSONS FROM AWAVE-SWEPT SHORE. Ecological Monographs, 2004, 74, 513-532.	5.4	117
71	Modulation of wave forces on kelp canopies by alongshore currents. Limnology and Oceanography, 2003, 48, 860-871.	3.1	57
72	Predicting wave exposure in the rocky intertidal zone: Do bigger waves always lead tolarger forces?. Limnology and Oceanography, 2003, 48, 1338-1345.	3.1	98

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73	Revised Estimates of the Effects of Turbulence on Fertilization in the Purple Sea Urchin, Strongylocentrotus purpuratus. Biological Bulletin, 2002, 203, 275-277.	1.8	40
74	The mechanics of wave-swept algae. Journal of Experimental Biology, 2002, 205, 1355-1362.	1.7	160
75	The mechanics of wave-swept algae. Journal of Experimental Biology, 2002, 205, 1355-62.	1.7	108
76	The menace of momentum: Dynamic forces on flexible organisms. Limnology and Oceanography, 1998, 43, 955-968.	3.1	101
77	SETTLEMENT OF MARINE ORGANISMS IN FLOW. Annual Review of Ecology, Evolution, and Systematics, 1997, 28, 317-339.	6.7	235
78	Pulsed delivery of subthermocline water to Conch Reef (Florida Keys) by internal tidal bores. Limnology and Oceanography, 1996, 41, 1490-1501.	3.1	210
79	Surviving hydrodynamic forces in a wave-swept environment: Consequences of morphology in the feather boa kelp, Egregia menziesii (Turner). Journal of Experimental Marine Biology and Ecology, 1995, 190, 109-133.	1.5	103
80	Predicting Physical Disturbance: Mechanistic Approaches to the Study of Survivorship on Waveâ€Swept Shores. Ecological Monographs, 1995, 65, 371-418.	5.4	213
81	Quantifying â€œwave exposureâ€: a simple device for recording maximum velocity and results of its use at several field sites. Journal of Experimental Marine Biology and Ecology, 1994, 181, 9-29.	1.5	172
82	Mechanical Consequences of Size in Waveâ€Swept Algae. Ecological Monographs, 1994, 64, 287-313.	5.4	211
83	The Largest, Smallest, Highest, Lowest, Longest, and Shortest: Extremes in Ecology. Ecology, 1993, 74, 1677-1692.	3.2	238
84	A limpet shell shape that reduces drag: laboratory demonstration of a hydrodynamic mechanism and an exploration of its effectiveness in nature. Canadian Journal of Zoology, 1989, 67, 2098-2106.	1.0	33
85	Fracture mechanics and the survival of wave-swept macroalgae. Journal of Experimental Marine Biology and Ecology, 1989, 127, 211-228.	1.5	67
86	Consequences of Surf-Zone Turbulence for Settlement and External Fertilization. American Naturalist, 1989, 134, 859-889.	2.1	344
87	Biology and the Mechanics of the Wave-Swept Environment. , 1988, , .		572
88	Life in the maelstrom: The biomechanics of wave-swept rocky shores. Trends in Ecology and Evolution, 1987, 2, 61-66.	8.7	54
89	Lift as a mechanism of patch initiation in mussel beds. Journal of Experimental Marine Biology and Ecology, 1987, 113, 231-245.	1.5	109
90	Wave forces on intertidal organisms: A case study1. Limnology and Oceanography, 1985, 30, 1171-1187.	3.1	93

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91	Mechanical Limits to Size in Waveâ€Swept Organisms. Ecological Monographs, 1985, 55, 69-102.	5.4	410
92	A simple device for recording the maximum force exerted on intertidal organisms1. Limnology and Oceanography, 1983, 28, 1269-1274.	3.1	23
93	Molecular Biomechanics of Molluscan Mucous Secretions. , 1983, , 431-465.		25
94	Forces on intertidal organisms due to breaking ocean waves: Design and application of a telemetry system1. Limnology and Oceanography, 1982, 27, 178-183.	3.1	23
95	The role of gastropod pedal mucus in locomotion. Nature, 1980, 285, 160-161.	27.8	161