Malcolm Burrows

List of Publications by Year
in descending order

93 papers	4,521 citations	109321 35 h-index	123424 61 g-index
97 all docs	97 docs citations	97 times ranked	2047 citing authors

#	Article	IF	Citations
1	Elucidating the complex organization of neural micro-domains in the locust Schistocerca gregaria using dMRI. Scientific Reports, 2021, 11, 3418.	3.3	1
2	Jumping in lantern bugs (Hemiptera, Fulgoridae). Journal of Experimental Biology, 2021, 224, .	1.7	4
3	Do enlarged hind legs of male thick-legged flower beetles contribute to take-off or mating?. Journal of Experimental Biology, 2020, 223, .	1.7	3
4	Effectiveness and efficiency of two distinct mechanisms for take-off in a derbid planthopper insect. Journal of Experimental Biology, 2019, 222, .	1.7	7
5	Jumping and take-off in a winged scorpion fly (Mecoptera, <i>Panorpa communis</i>). Journal of Experimental Biology, 2019, 222, .	1.7	4
6	How biomechanics influence animal movements. Current Biology, 2019, 29, R186-R187.	3.9	1
7	Jumping performance of flea hoppers and other mirid bugs (Hemiptera, Miridae). Journal of Experimental Biology, 2017, 220, 1606-1617.	1.7	10
8	Take-off mechanisms in parasitoid wasps. Journal of Experimental Biology, 2017, 220, 3812-3825.	1.7	7
9	Jumping without slipping: leafhoppers (Hemiptera: Cicadellidae) possess special tarsal structures for jumping from smooth surfaces. Journal of the Royal Society Interface, 2017, 14, 20170022.	3.4	17
10	Three dimensional reconstruction of energy stores for jumping in planthoppers and froghoppers from confocal laser scanning microscopy. ELife, 2017, 6, .	6.0	21
11	Development and deposition of resilin in energy stores for locust jumping. Journal of Experimental Biology, 2016, 219, 2449-57.	1.7	18
12	Increased muscular volume and cuticular specialisations enhance jump velocity in solitarious compared with gregarious desert locusts, Schistocerca gregaria. Journal of Experimental Biology, 2016, 219, 635-648.	1.7	14
13	Mantises Exchange Angular Momentum between Three Rotating Body Parts to Jump Precisely to Targets. Current Biology, 2015, 25, 786-789.	3.9	22
14	Jumping mechanisms and strategies in moths (Lepidoptera). Journal of Experimental Biology, 2015, 218, 1655-66.	1.7	19
15	Jumping mechanisms in adult caddis flies (Insecta, Trichoptera). Journal of Experimental Biology, 2015, 218, 2764-2774.	1.7	14
16	Jumping mechanisms in dictyopharid planthoppers (<i>Hemiptera, Dicytyopharidae</i>). Journal of Experimental Biology, 2014, 217, 402-13.	1.7	14
17	Rapid swimming and escape movements in the aquatic larvae and pupae of the phantom midge<i>Chaoborus</i>(Diptera, Chaoboridae). Journal of Experimental Biology, 2014, 217, 2468-79.	1.7	10
18	Jumping mechanisms in flatid planthoppers (Hemiptera, Flatidae). Journal of Experimental Biology, 2014, 217, 2590-600.	1.7	13

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19	Slowly contracting muscles power the rapid jumping of planthopper insects (Hemiptera, Issidae). Cell and Tissue Research, 2014, 355, 213-222.	2.9	4
20	Rapid behavioural gregarization in the desert locust, Schistocerca gregaria entails synchronous changes in both activity and attraction to conspecifics. Journal of Insect Physiology, 2014, 65, 9-26.	2.0	61
21	Jumping mechanisms in lacewings (Neuroptera, Chrysopidae and Hemerobiidae). Journal of Experimental Biology, 2014, 217, 4252-61.	1.7	20
22	Jumping mechanisms of treehopper insects (Hemiptera, Auchenorrhyncha, Membracidae). Journal of Experimental Biology, 2013, 216, 788-99.	1.7	21
23	Jumping mechanisms in gum treehopper insects (<i>Hemiptera, Eurymelinae</i>). Journal of Experimental Biology, 2013, 216, 2682-90.	1.7	6
24	Jumping from the surface of water by the long-legged fly<i>Hydrophorus</i>(Diptera,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 Td (Dol	1.7	16
25	Interacting Gears Synchronize Propulsive Leg Movements in a Jumping Insect. Science, 2013, 341, 1254-1256.	12.6	98
26	Pygmy mole crickets jump from water. Current Biology, 2012, 22, R990-R991.	3.9	26
27	Jumping mechanisms in jumping plant lice (Hemiptera, Sternorrhyncha, Psyllidae). Journal of Experimental Biology, 2012, 215, 3612-21.	1.7	24
28	Locusts use a composite of resilin and hard cuticle as an energy store for jumping and kicking. Journal of Experimental Biology, 2012, 215, 3501-12.	1.7	60
29	A cockroach that jumps. Biology Letters, 2012, 8, 390-392.	2.3	16
30	Biomechanics of jumping in the flea. Journal of Experimental Biology, 2011, 214, 836-847.	1.7	111
31	Epigenetic remodelling of brain, body and behaviour during phase change in locusts. Neural Systems & Circuits, 2011, 1, 11.	1.8	30
32	Jumping mechanisms and performance of snow fleas (Mecoptera, Boreidae). Journal of Experimental Biology, 2011, 214, 2362-2374.	1.7	39
33	Microarray-Based Transcriptomic Analysis of Differences between Long-Term Gregarious and Solitarious Desert Locusts. PLoS ONE, 2011, 6, e28110.	2.5	36
34	Antibody Labelling of Resilin in Energy Stores for Jumping in Plant Sucking Insects. PLoS ONE, 2011, 6, e28456.	2.5	19
35	Actions of motor neurons and leg muscles in jumping by planthopper insects (hemiptera, issidae). Journal of Comparative Neurology, 2010, 518, 1349-1369.	1.6	12
36	Spatiotemporal Receptive Field Properties of a Looming-Sensitive Neuron in Solitarious and Gregarious Phases of the Desert Locust. Journal of Neurophysiology, 2010, 103, 779-792.	1.8	33

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37	Motor neurone responses during a postural reflex in solitarious and gregarious desert locusts. Journal of Insect Physiology, 2010, 56, 902-910.	2.0	12
38	Energy storage and synchronisation of hind leg movements during jumping in planthopper insects (Hemiptera, Issidae). Journal of Experimental Biology, 2010, 213, 469-478.	1.7	37
39	Jumping mechanisms and performance of pygmy mole crickets (Orthoptera, Tridactylidae). Journal of Experimental Biology, 2010, 213, 2386-2398.	1.7	44
40	Jumping performance of planthoppers (Hemiptera, Issidae). Journal of Experimental Biology, 2009, 212, 2844-2855.	1.7	56
41	HOW FLEAS JUMP. Journal of Experimental Biology, 2009, 212, 2881-2883.	1.7	21
42	A single muscle moves a crustacean limb joint rhythmically by acting against a spring containing resilin. BMC Biology, 2009, 7, 27.	3.8	19
43	Jumping strategies and performance in shore bugs (Hemiptera, Heteroptera,Saldidae). Journal of Experimental Biology, 2009, 212, 106-115.	1.7	29
44	Serotonin Mediates Behavioral Gregarization Underlying Swarm Formation in Desert Locusts. Science, 2009, 323, 627-630.	12.6	338
45	Resilin and chitinous cuticle form a composite structure for energy storage in jumping by froghopper insects. BMC Biology, 2008, 6, 41.	3.8	131
46	Neurons controlling jumping in froghopper insects. Journal of Comparative Neurology, 2008, 507, 1065-1075.	1.6	8
47	The effect of leg length on jumping performance of short- and long-legged leafhopper insects. Journal of Experimental Biology, 2008, 211, 1317-1325.	1.7	44
48	Jumping in a wingless stick insect,<i>Timema chumash</i>(Phasmatodea,Timematodea, Timematidae). Journal of Experimental Biology, 2008, 211, 1021-1028.	1.7	14
49	Jumping behaviour in a Gondwanan relict insect (Hemiptera: Coleorrhyncha:Peloridiidae). Journal of Experimental Biology, 2007, 210, 3311-3318.	1.7	35
50	Anatomy of the hind legs and actions of their muscles during jumping in leafhopper insects. Journal of Experimental Biology, 2007, 210, 3590-3600.	1.7	34
51	Kinematics of jumping in leafhopper insects (Hemiptera, Auchenorrhyncha,Cicadellidae). Journal of Experimental Biology, 2007, 210, 3579-3589.	1.7	48
52	Compensatory Plasticity at an Identified Synapse Tunes a Visuomotor Pathway. Journal of Neuroscience, 2007, 27, 4621-4633.	3.6	32
53	Neural Control and Coordination of Jumping in Froghopper Insects. Journal of Neurophysiology, 2007, 97, 320-330.	1.8	41
54	Jumping performance of froghopper insects. Journal of Experimental Biology, 2006, 209, 4607-4621.	1.7	122

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55	Morphology and action of the hind leg joints controlling jumping in froghopper insects. Journal of Experimental Biology, 2006, 209, 4622-4637.	1.7	69
56	Obituary Memories of Bob Boutilier in Cambridge. Journal of Experimental Biology, 2004, 207, 1052-1052.	1.7	0
57	Projection patterns of posterior dorsal unpaired median neurons of the locust subesophageal ganglion. Journal of Comparative Neurology, 2004, 478, 164-175.	1.6	41
58	Substantial changes in central nervous system neurotransmitters and neuromodulators accompany phase change in the locust. Journal of Experimental Biology, 2004, 207, 3603-3617.	1.7	118
59	Localisation of Even-skipped in the mature CNS of the locust, Schistocerca gregaria. Cell and Tissue Research, 2003, 313, 237-244.	2.9	4
60	Froghopper insects leap to new heights. Nature, 2003, 424, 509-509.	27.8	200
61	Proprioceptors monitoring forces in a locust hind leg during kicking form negative feedback loops with flexor tibiae motor neurons. Journal of Experimental Biology, 2003, 206, 759-769.	1.7	4
62	Jumping and kicking in bush crickets. Journal of Experimental Biology, 2003, 206, 1035-1049.	1.7	103
63	Mechanosensory-induced behavioural gregarization in the desert locust Schistocerca gregaria. Journal of Experimental Biology, 2003, 206, 3991-4002.	1.7	155
64	Jumping and kicking in the false stick insect<i>Prosarthria teretrirostris</i>: kinematics and motor control. Journal of Experimental Biology, 2002, 205, 1519-1530.	1.7	50
65	Jumping in a winged stick insect. Journal of Experimental Biology, 2002, 205, 2399-2412.	1.7	23
66	Jumping and kicking in the false stick insect Prosarthria teretrirostris: kinematics and motor control. Journal of Experimental Biology, 2002, 205, 1519-30.	1.7	24
67	Jumping in a winged stick insect. Journal of Experimental Biology, 2002, 205, 2399-412.	1.7	7
68	The Neuroanatomy of Nitric Oxideâ€"Cyclic GMP Signaling in the Locust: Functional Implications for Sensory Systems. American Zoologist, 2001, 41, 321-331.	0.7	11
69	The kinematics and neural control of high-speed kicking movements in the locust. Journal of Experimental Biology, 2001, 204, 3471-3481.	1.7	73
70	The kinematics and neural control of high-speed kicking movements in the locust. Journal of Experimental Biology, 2001, 204, 3471-81.	1.7	44
71	Sensory afferents and motor neurons as targets for nitric oxide in the locust. Journal of Comparative Neurology, 2000, 422, 521-532.	1.6	38
72	Sensory afferents and motor neurons as targets for nitric oxide in the locust. Journal of Comparative Neurology, 2000, 422, 521-532.	1.6	2

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73	NADPH diaphorase histochemistry in the thoracic ganglia of locusts, crickets, and cockroaches: Species differences and the impact of fixation. , 1999, 410, 387-397.		37
74	Nitric oxide synthase in the thoracic ganglia of the locust: Distribution in the neuropiles and morphology of neurones. , 1998, 395, 217-230.		39
75	Processing of tactile information in neuronal networks controlling leg movements of the Locust. Journal of Insect Physiology, 1997, 43, 107-123.	2.0	25
76	Correlation between the receptive fields of locust interneurons, their dendritic morphology, and the central projections of mechanosensory neurons. Journal of Comparative Neurology, 1993, 329, 412-426.	1.6	49
77	Distribution of acetylcholine receptors in the central nervous system of adult locusts. Journal of Comparative Neurology, 1993, 334, 47-58.	1.6	25
78	Local circuits for the control of leg movements in an insect. Trends in Neurosciences, 1992, 15, 226-232.	8.6	100
79	A Population of ascending intersegmental interneurones in the locust with mechanosensory inputs from a hind leg. Journal of Comparative Neurology, 1988, 275, 1-12.	1.6	53
80	The Physiology and Morphology of Median Nerve Motor Neurones in the Thoracic Ganglia of the Locust. Journal of Experimental Biology, 1982, 96, 325-341.	1.7	15
81	Interneurones Co-Ordinating the Ventilatory Movements of the Thoracic Spiracles in the Locust. Journal of Experimental Biology, 1982, 97, 385-400.	1.7	24
82	The morphology and physiology of some walking leg motor neurones in a scorpion. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1980, 140, 31-42.	1.6	17
83	Locusts Use the Same Basic Motor Pattern in Swimming as In Jumping and Kicking. Journal of Experimental Biology, 1978, 75, 81-93.	1.7	51
84	How the Locust Dries Itself. Journal of Experimental Biology, 1978, 75, 95-100.	1.7	12
85	The role of delayed excitation in the co-ordination of some metathoracic flight motoneurons of a locust. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1973, 83, 135-164.	1.6	64
86	The morphology of an elevator and a depressor motoneuron of the hindwing of a locust. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1973, 83, 165-178.	1.6	72
87	Physiological and morphological properties of the metathoracic common inhibitory neuron of the locust. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1973, 82, 59-78.	1.6	92
88	Neural mechanisms underlying behavior in the locustSchistocerca gregaria I. Physiology of identified motorneurons in the metathoracic ganglion. Journal of Neurobiology, 1973, 4, 3-41.	3.6	245
89	Neural mechanisms underlying behavior in the locustSchistocerca gregaria. II. Integrative activity in metathoracic neurons. Journal of Neurobiology, 1973, 4, 43-67.	3.6	55
90	Neural mechanisms underlying behavior in the locustSchistocerca gregaria III. Topography of limb motorneurons in the metathoracic ganglion. Journal of Neurobiology, 1973, 4, 167-186.	3.6	168

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91	The Mechanism of Rapid Running in the Ghost Crab, <i>Ocypode Ceratophthalma</i>. Journal of Experimental Biology, 1973, 58, 327-349.	1.7	93
92	Neuromuscular physiology of the strike mechanism of the mantis shrimp,Hemisquilla. The Journal of Experimental Zoology, 1972, 179, 379-393.	1.4	45
93	Fine structure of muscles controlling the strike of the mantis shrimp,Hemisquilla. The Journal of Experimental Zoology, 1972, 179, 395-415.	1.4	24