

David Renault

List of Publications by Year in descending order

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Version: 2024-02-01

109
papers

4,328
citations

147801

31
h-index

144013

57
g-index

119
all docs

119
docs citations

119
times ranked

4423
citing authors

#	ARTICLE	IF	CITATIONS
1	Insects in Fluctuating Thermal Environments. Annual Review of Entomology, 2015, 60, 123-140.	11.8	577
2	The Arabidopsis pop2-1 mutant reveals the involvement of GABA transaminase in salt stress tolerance. BMC Plant Biology, 2010, 10, 20.	3.6	243
3	Global economic costs of aquatic invasive alien species. Science of the Total Environment, 2021, 775, 145238.	8.0	183
4	Economic costs of invasive alien species across Europe. NeoBiota, 0, 67, 153-190.	1.0	148
5	Combined transcriptomic and metabolomic approach uncovers molecular mechanisms of cold tolerance in a temperate flesh fly. Physiological Genomics, 2012, 44, 764-777.	2.3	128
6	Gene expression changes governing extreme dehydration tolerance in an Antarctic insect. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20744-20749.	7.1	118
7	Environmental Adaptations, Ecological Filtering, and Dispersal Central to Insect Invasions. Annual Review of Entomology, 2018, 63, 345-368.	11.8	116
8	Non-English languages enrich scientific knowledge: The example of economic costs of biological invasions. Science of the Total Environment, 2021, 775, 144441.	8.0	108
9	Long-term fasting and realimentation in hypogean and epigeal isopods: a proposed adaptive strategy for groundwater organisms. Journal of Experimental Biology, 2002, 205, 2079-2087.	1.7	108
10	The significance of the sub-Antarctic Kerguelen Islands for the assessment of the vulnerability of native communities to climate change, alien insect invasions and plant viruses. Biological Invasions, 2011, 13, 1195-1208.	2.4	94
11	Integrative analysis of metabolite and transcript abundance during the short-term response to saline and oxidative stress in the brown alga <i>Ectocarpus siliculosus</i> . Plant, Cell and Environment, 2011, 34, 629-642.	5.7	91
12	Sterile insect technique and Wolbachia symbiosis as potential tools for the control of the invasive species <i>Drosophila suzukii</i> . Journal of Pest Science, 2018, 91, 489-503.	3.7	90
13	Exploring the plastic response to cold acclimation through metabolomics. Functional Ecology, 2012, 26, 711-722.	3.6	85
14	Behavioural, ventilatory and respiratory responses of epigeal and hypogean crustaceans to different temperatures. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2005, 141, 1-7.	1.8	80
15	Long-term fasting and realimentation in hypogean and epigeal isopods: a proposed adaptive strategy for groundwater organisms. Journal of Experimental Biology, 2002, 205, 2079-87.	1.7	75
16	Metabolic and Proteomic Profiling of Diapause in the Aphid Parasitoid <i>Praon volucre</i> . PLoS ONE, 2012, 7, e32606.	2.5	72
17	Abiotic stressors and stress responses: What commonalities appear between species across biological organization levels?. Environmental Pollution, 2015, 202, 66-77.	7.5	69
18	Is body size an influential parameter in determining the duration of survival at low temperatures in <i>Alphitobius diaperinus</i> Panzer (Coleoptera: Tenebrionidae)?. Journal of Zoology, 2003, 259, 381-388.	1.7	68

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19	Low environmentally relevant levels of bioactive xenobiotics and associated degradation products cause cryptic perturbations of metabolism and molecular stress responses in <i>Arabidopsis thaliana</i> . <i>Journal of Experimental Botany</i> , 2013, 64, 2753-2766.	4.8	59
20	Deciphering the Metabolic Changes Associated with Diapause Syndrome and Cold Acclimation in the Two-Spotted Spider Mite <i>Tetranychus urticae</i> . <i>PLoS ONE</i> , 2013, 8, e54025.	2.5	50
21	Dietary sugars affect cold tolerance of <i>Drosophila melanogaster</i> . <i>Metabolomics</i> , 2013, 9, 608-622.	3.0	48
22	Uncovering the benefits of fluctuating thermal regimes on cold tolerance of drosophila flies by combined metabolomic and lipidomic approach. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016, 1861, 1736-1745.	2.4	48
23	Unexpected effects of sublethal doses of insecticide on the peripheral olfactory response and sexual behavior in a pest insect. <i>Environmental Science and Pollution Research</i> , 2016, 23, 3073-3085.	5.3	46
24	Economic costs of invasive alien species in the Mediterranean basin. <i>NeoBiota</i> , 0, 67, 427-458.	1.0	44
25	Metabolic responses to cold in subterranean crustaceans. <i>Journal of Experimental Biology</i> , 2005, 208, 2923-2929.	1.7	42
26	Economic costs of invasive alien ants worldwide. <i>Biological Invasions</i> , 2022, 24, 2041-2060.	2.4	42
27	Does fluctuating thermal regime trigger free amino acid production in the parasitic wasp <i>Aphidius colemani</i> (Hymenoptera: Aphidiinae)? <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 147, 484-492.	1.8	40
28	Intracellular ice formation in insects: Unresolved after 50years?. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2010, 155, 14-18.	1.8	40
29	Thermal tolerance breadths among groundwater crustaceans living in a thermally constant environment. <i>Journal of Experimental Biology</i> , 2013, 216, 1683-94.	1.7	38
30	Comparative study of the metabolic responses during food shortage and subsequent recovery at different temperatures in the adult lesser mealworm, <i>Alphitobius diaperinus</i> (Coleoptera: Tenebrionidae). <i>Journal of Experimental Biology</i> , 2010, 223, 1010-1016.	1.0	36
31	Acclimation of earthworms to chemicals in anthropogenic landscapes, physiological mechanisms and soil ecological implications. <i>Soil Biology and Biochemistry</i> , 2014, 73, 49-58.	8.8	36
32	Cold acclimation allows <i>Drosophila</i> flies to maintain mitochondrial functioning under cold stress. <i>Insect Biochemistry and Molecular Biology</i> , 2017, 80, 52-60.	2.7	36
33	Biological invasions in France: Alarming costs and even more alarming knowledge gaps. <i>NeoBiota</i> , 0, 67, 191-224.	1.0	36
34	Changes in free amino acids in <i>Alphitobius diaperinus</i> (Coleoptera: Tenebrionidae) during thermal and food stress. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2006, 143, 279-285.	1.8	35
35	Hypoxic coma as a strategy to survive inundation in a salt-marsh inhabiting spider. <i>Biology Letters</i> , 2009, 5, 442-445.	2.3	35
36	Metabolic profiling of <i>Lolium perenne</i> shows functional integration of metabolic responses to diverse subtoxic conditions of chemical stress. <i>Journal of Experimental Botany</i> , 2015, 66, 1801-1816.	4.8	34

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37	Starvation resistance and effects of diet on energy reserves in a predatory ground beetle (<i>Merizodus</i>) Tj ETQq1 1 0.784314 rgBT /Ove A, Molecular & Integrative Physiology, 2012, 161, 122-129.	1.8	31
38	Does cold tolerance plasticity correlate with the thermal environment and metabolic profiles of a parasitoid wasp?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2013, 164, 77-83.	1.8	31
39	Dietary live yeast alters metabolic profiles, protein biosynthesis and thermal stress tolerance of <i>Drosophila melanogaster</i> . Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2014, 170, 6-14.	1.8	31
40	Effects of cadmium, inorganic mercury and methyl-mercury on the physiology and metabolomic profiles of shoots of the macrophyte <i>Elodea nuttallii</i> . Environmental Pollution, 2020, 257, 113557.	7.5	31
41	A Review of the Phenotypic Traits Associated with Insect Dispersal Polymorphism, and Experimental Designs for Sorting out Resident and Disperser Phenotypes. Insects, 2020, 11, 214.	2.2	29
42	Advancing biological invasion hypothesis testing using functional diversity indices. Science of the Total Environment, 2022, 834, 155102.	8.0	29
43	Hormesis-like effect of mild larval crowding on thermotolerance in <i>Drosophila</i> flies. Journal of Experimental Biology, 2018, 221, .	1.7	28
44	Saline stress tolerance partly matches with habitat preference in ground-living wolf spiders. Physiological Entomology, 2011, 36, 165-172.	1.5	27
45	Cold Acclimation Favors Metabolic Stability in <i>Drosophila suzukii</i> . Frontiers in Physiology, 2018, 9, 1506.	2.8	27
46	Lifespan prolonging mechanisms and insulin upregulation without fat accumulation in long-lived reproductives of a higher termite. Communications Biology, 2022, 5, 44.	4.4	27
47	Freezing or supercooling: how does an aquatic subterranean crustacean survive exposures at subzero temperatures?. Journal of Experimental Biology, 2006, 209, 3469-3475.	1.7	26
48	Seasonal variation in wing size and shape between geographic populations of the malaria vector, <i>Anopheles coluzzii</i> in Burkina Faso (West Africa). Acta Tropica, 2015, 143, 79-88.	2.0	26
49	Behavioral and metabolic effects of sublethal doses of two insecticides, chlorpyrifos and methomyl, in the Egyptian cotton leafworm, <i>Spodoptera littoralis</i> (Boisduval) (Lepidoptera: Noctuidae). Environmental Science and Pollution Research, 2016, 23, 3086-3096.	5.3	26
50	Feeding choice and predation pressure of two invasive gammarids, <i>Gammarus tigrinus</i> and <i>Dikerogammarus villosus</i> , under increasing temperature. Hydrobiologia, 2016, 781, 43-54.	2.0	25
51	Long-term after-effects of cold exposure in adult <i>Alphitobius diaperinus</i> (Tenebrionidae): the need to link survival ability with subsequent reproductive success. Ecological Entomology, 2011, 36, 36-42.	2.2	23
52	Seasonal changes of free amino acids and thermal hysteresis in overwintering heteropteran insect, <i>Pyrrhocoris apterus</i> . Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2011, 160, 245-251.	1.8	23
53	Effects of diet and salinity on the survival, egg laying and metabolic fingerprints of the ground-dwelling spider <i>Arctosa fulvolineata</i> (Araneae, Lycosidae). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2012, 163, 388-395.	1.8	23
54	Empirically simulated spatial sorting points at fast epigenetic changes in dispersal behaviour. Evolutionary Ecology, 2015, 29, 299-310.	1.2	23

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55	Effect of food shortage and temperature on oxygen consumption in the lesser mealworm, <i>Alphitobius diaperinus</i> (Panzer) (Coleoptera: Tenebrionidae). <i>Physiological Entomology</i> , 2003, 28, 261-267.	1.5	22
56	Do current environmental conditions explain physiological and metabolic responses of subterranean crustaceans to cold?. <i>Journal of Experimental Biology</i> , 2009, 212, 1859-1868.	1.7	22
57	Metabolic fingerprinting of the responses to salinity in the invasive ground beetle <i>Merizodus soledadinus</i> at the Kerguelen Islands. <i>Journal of Insect Physiology</i> , 2013, 59, 91-100.	2.0	22
58	Resolution of quantitative resistance to clubroot into QTL-specific metabolic modules. <i>Journal of Experimental Botany</i> , 2019, 70, 5375-5390.	4.8	22
59	Spotlight on the invasion of a carabid beetle on an oceanic island over a 105-year period. <i>Scientific Reports</i> , 2020, 10, 17103.	3.3	21
60	The magnitude, diversity, and distribution of the economic costs of invasive terrestrial invertebrates worldwide. <i>Science of the Total Environment</i> , 2022, 835, 155391.	8.0	21
61	Effects of acclimation and diapause on the thermal tolerance of the two-spotted spider mite <i>Tetranychus urticae</i> . <i>Journal of Thermal Biology</i> , 2012, 37, 419-423.	2.5	20
62	Lifeâ€œhistory evolution in response to changes in metapopulation structure in an arthropod herbivore. <i>Functional Ecology</i> , 2016, 30, 1408-1417.	3.6	20
63	A dynamic biofilter to remove pathogens during tomato soilless culture. <i>Agronomy for Sustainable Development</i> , 2006, 26, 185-193.	5.3	19
64	Trophic transfer of heavy metals along a pollution gradient in a terrestrial agro-industrial food web. <i>Geoderma</i> , 2022, 413, 115748.	5.1	18
65	Morphological changes in the spiracles of <i>Anopheles gambiae</i> s.l (Diptera) as a response to the dry season conditions in Burkina Faso (West Africa). <i>Parasites and Vectors</i> , 2016, 9, 11.	2.5	17
66	Water loss of male and female <i>Alphitobius diaperinus</i> (Coleoptera: Tenebrionidae) maintained under dry conditions. <i>European Journal of Entomology</i> , 2004, 101, 491-494.	1.2	17
67	Massive economic costs of biological invasions despite widespread knowledge gaps: a dual setback for India. <i>Biological Invasions</i> , 2022, 24, 2017-2039.	2.4	17
68	Aquatic and terrestrial morphotypes of the aquatic invasive plant, <i>Ludwigia grandiflora</i> , show distinct morphological and metabolomic responses. <i>Ecology and Evolution</i> , 2018, 8, 2568-2579.	1.9	16
69	Surprisingly high economic costs of biological invasions in protected areas. <i>Biological Invasions</i> , 2022, 24, 1995-2016.	2.4	16
70	Modelling the damage costs of invasive alien species. <i>Biological Invasions</i> , 2022, 24, 1949-1972.	2.4	15
71	Impact of fluctuating thermal regimes on <i>Drosophila melanogaster</i> survival to cold stress. <i>Animal Biology</i> , 2016, 66, 427-444.	1.0	14
72	Assessment of oxidative stress and activities of antioxidant enzymes depicts the negative systemic effect of iron-containing fertilizers and plant phenolic compounds in the desert locust. <i>Environmental Science and Pollution Research</i> , 2016, 23, 21989-22000.	5.3	14

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73	Multiscale Approach to Deciphering the Molecular Mechanisms Involved in the Direct and Intergenerational Effect of Ibuprofen on Mosquito <i>Aedes aegypti</i> . <i>Environmental Science & Technology</i> , 2018, 52, 7937-7950.	10.0	14
74	Hypomethylation of the aquatic invasive plant, <i>Ludwigia grandiflora</i> subsp. <i>hexapetala</i> mimics the adaptive transition into the terrestrial morphotype. <i>Physiologia Plantarum</i> , 2020, 170, 280-298.	5.2	12
75	Habitat use, but not dispersal limitation, as the mechanism behind the aggregated population structure of the mygalomorph species <i>Atypus affinis</i> . <i>Animal Biology</i> , 2012, 62, 181-192.	1.0	11
76	Effects of DEHP on post-embryonic development, nuclear receptor expression, metabolite and ecdysteroid concentrations of the moth <i>Spodoptera littoralis</i> . <i>Chemosphere</i> , 2019, 215, 725-738.	8.2	11
77	Diversity of Bacterial Communities that Colonize the Filter Units Used for Controlling Plant Pathogens in Soilless Cultures. <i>Microbial Ecology</i> , 2012, 63, 170-187.	2.8	10
78	The importance of relative humidity and trophic resources in governing ecological niche of the invasive carabid beetle <i>Merizodus soledadinus</i> in the Kerguelen archipelago. <i>Journal of Insect Physiology</i> , 2016, 93-94, 42-49.	2.0	10
79	Studies on chill coma recovery in the ladybird, <i>Harmonia axyridis</i> : Ontogenetic profile, effect of repeated cold exposures, and capacity to predict winter survival. <i>Journal of Thermal Biology</i> , 2018, 74, 275-280.	2.5	10
80	Wing morphology of the active flyer <i>Calliphora vicina</i> (Diptera: Calliphoridae) during its invasion of a sub-Antarctic archipelago where insect flightlessness is the rule. <i>Biological Journal of the Linnean Society</i> , 2016, 119, 179-193.	1.6	9
81	Sea water transport and submersion tolerance as dispersal strategies for the invasive ground beetle <i>Merizodus soledadinus</i> (Carabidae). <i>Polar Biology</i> , 2011, 34, 1591-1595.	1.2	8
82	Metabolic adaptations in a range-expanding arthropod. <i>Ecology and Evolution</i> , 2016, 6, 6556-6564.	1.9	8
83	Comparative salinity tolerance in native flies from the subantarctic Kerguelen Islands: a metabolomic approach. <i>Polar Biology</i> , 2016, 39, 47-56.	1.2	8
84	Variation of thermal plasticity for functional traits between populations of an invasive aquatic plant from two climatic regions. <i>Hydrobiologia</i> , 2021, 848, 2077-2091.	2.0	8
85	Differences in the Susceptibility to Commercial Insecticides among Populations of the Lesser Mealworm <i>Alphitobius diaperinus</i> Collected from Poultry Houses in France. <i>Insects</i> , 2021, 12, 309.	2.2	8
86	Contrasting Manual and Automated Assessment of Thermal Stress Responses and Larval Body Size in Black Soldier Flies and Houseflies. <i>Insects</i> , 2021, 12, 380.	2.2	8
87	Rapid Adjustments in Thermal Tolerance and the Metabolome to Daily Environmental Changes – A Field Study on the Arctic Seed Bug <i>Nysius groenlandicus</i> . <i>Frontiers in Physiology</i> , 2022, 13, 818485.	2.8	8
88	The multilevel antibiotic-induced perturbations to biological systems: Early-life exposure induces long-lasting damages to muscle structure and mitochondrial metabolism in flies. <i>Environmental Pollution</i> , 2018, 241, 821-833.	7.5	7
89	Once upon a time in the far south: Influence of local drivers and functional traits on plant invasion in the harsh sub-Antarctic islands. <i>Journal of Vegetation Science</i> , 2021, 32, e13057.	2.2	7
90	Divergent metabolomic profiles of cold-exposed mature and immature females of tropical versus temperate <i>Drosophila</i> species. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2021, 258, 110995.	1.8	7

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91	Heat shock protein responses to salinity, food deprivation, and temperature in the invasive ground beetle <i>Merizodus soledadinus</i> at the Kerguelen Islands. <i>Polar Biology</i> , 2013, 36, 201-209.	1.2	6
92	Chronic exposure to soil salinity in terrestrial species: Does plasticity and underlying physiology differ among specialized ground-dwelling spiders?. <i>Journal of Insect Physiology</i> , 2016, 90, 49-58.	2.0	6
93	Similar post-stress metabolic trajectories in young and old flies. <i>Experimental Gerontology</i> , 2018, 102, 43-50.	2.8	6
94	Physiological and biochemical responses to thermal stress vary among genotypes in the parasitic wasp <i>Nasonia vitripennis</i> . <i>Journal of Insect Physiology</i> , 2019, 117, 103909.	2.0	6
95	Living with predators at the larval stage has differential long-lasting effects on adult life history and physiological traits in two anopheline mosquito species. <i>Journal of Insect Physiology</i> , 2021, 131, 104234.	2.0	6
96	The distinct phenotypic signatures of dispersal and stress in an arthropod model: from physiology to life history. <i>Journal of Experimental Biology</i> , 2019, 222, .	1.7	5
97	Local-scale dynamics of plant-pesticide interactions in a northern Brittany agricultural landscape. <i>Science of the Total Environment</i> , 2020, 744, 140772.	8.0	5
98	Thermal plasticity and sensitivity to insecticides in populations of an invasive beetle: Cyfluthrin increases vulnerability to extreme temperature. <i>Chemosphere</i> , 2021, 274, 129905.	8.2	5
99	The responses of cucumber plants subjected to different salinity or fertilizer concentrations and reproductive success of <i>Tetranychus urticae</i> mites on these plants. <i>Experimental and Applied Acarology</i> , 2018, 75, 41-53.	1.6	4
100	Exploitative competition for floral resources reduces sugar intake but differently impacts the foraging behaviour of two non- <i>Apis</i> flower visitors. <i>Oikos</i> , 2022, 2022, .	2.7	4
101	Impact of different acclimation temperatures and duration on the chill coma temperature and oxygen consumption in the tenebrionid beetle <i>Alphitobius diaperinus</i> . <i>Physiological Entomology</i> , 2012, 37, 354-359.	1.5	3
102	Bacterial Shifts in Nutrient Solutions Flowing Through Biofilters Used in Tomato Soilless Culture. <i>Microbial Ecology</i> , 2018, 76, 169-181.	2.8	3
103	Thermal tolerance patterns of a carabid beetle sampled along invasion and altitudinal gradients at a sub-Antarctic island. <i>Journal of Thermal Biology</i> , 2019, 86, 102447.	2.5	3
104	Phenology under bottom-up control: change in host quality induces diapause in parasitic wasps. , 0, 1, .		3
105	Huff and puff and blow down: invasive plants traits response to strong winds at the Southern Oceanic Islands. <i>Oikos</i> , 0, , .	2.7	2
106	Effect of different doses of the catecholamine epinephrine on antioxidant responses of larvae of the flesh fly <i>Sarcophaga dux</i> . <i>Environmental Science and Pollution Research</i> , 2021, , 1.	5.3	2
107	Adaptations of a native Subantarctic flightless fly to dehydration stress: more plastic than we thought? (Short Communication). <i>Czech Polar Reports</i> , 2014, 4, 123-128.	0.6	1
108	Ecophysiological Responses of the Lesser Mealworm <i>Alphitobius diaperinus</i> Exposed to Desiccating Conditions. <i>Frontiers in Physiology</i> , 2022, 13, 826458.	2.8	1

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109	Do current environmental conditions explain physiological and metabolic responses of subterranean crustaceans to cold?. <i>Journal of Experimental Biology</i> , 2010, 213, 2354-2354.	1.7	0