Jesper Givskov SÃ¸rensen

List of Publications by Year
in descending order

134 papers	8,441 citations	66336 42 h-index	48312 88 g-index
139 all docs	139 docs citations	139 times ranked	6144 citing authors

#	Article	IF	Citations
1	The evolutionary and ecological role of heat shock proteins. Ecology Letters, 2003, 6, 1025-1037.	6.4	1,132
2	Adaptation of Drosophila to temperature extremes: bringing together quantitative and molecular approaches. Journal of Thermal Biology, 2003, 28, 175-216.	2.5	896
3	Water loss in insects: An environmental change perspective. Journal of Insect Physiology, 2011, 57, 1070-1084.	2.0	296
4	Phenotypic variance, plasticity and heritability estimates of critical thermal limits depend on methodological context. Functional Ecology, 2009, 23, 133-140.	3.6	271
5	Genetic variation in thermal tolerance among natural populations ofDrosophila buzzatii: down regulation of Hsp70 expression and variation in heat stress resistance traits. Functional Ecology, 2001, 15, 289-296.	3.6	239
6	Metabolomic profiling of rapid cold hardening and cold shock in Drosophila melanogaster. Journal of Insect Physiology, 2007, 53, 1218-1232.	2.0	232
7	Changes in membrane lipid composition following rapid cold hardening in Drosophila melanogaster. Journal of Insect Physiology, 2005, 51, 1173-1182.	2.0	224
8	Full genome gene expression analysis of the heat stress response in Drosophila melanogaster. Cell Stress and Chaperones, 2005, 10, 312.	2.9	223
9	How to assess <i>Drosophila</i> cold tolerance: chill coma temperature and lower lethal temperature are the best predictors of cold distribution limits. Functional Ecology, 2015, 29, 55-65.	3.6	214
10	Costs and benefits of cold acclimation in field-released <i>Drosophila</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 216-221.	7.1	212
11	Metabolomic profiling of heat stress: hardening and recovery of homeostasis in Drosophila. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2006, 291, R205-R212.	1.8	170
12	Larval crowding in Drosophila melanogaster induces Hsp70 expression, and leads to increased adult longevity and adult thermal stress resistance. Journal of Insect Physiology, 2001, 47, 1301-1307.	2.0	168
13	Effects of acclimation temperature on thermal tolerance and membrane phospholipid composition in the fruit fly Drosophila melanogaster. Journal of Insect Physiology, 2008, 54, 619-629.	2.0	148
14	Altitudinal variation for stress resistance traits and thermal adaptation in adult Drosophila buzzatii from the New World. Journal of Evolutionary Biology, 2005, 18, 829-837.	1.7	143
15	Mass-rearing of insects for pest management: Challenges, synergies and advances from evolutionary physiology. Crop Protection, 2012, 38, 87-94.	2.1	139
16	Effects of cold- and heat hardening on thermal resistance in Drosophila melanogaster. Journal of Insect Physiology, 2003, 49, 719-726.	2.0	128
17	Validity of Thermal Ramping Assays Used to Assess Thermal Tolerance in Arthropods. PLoS ONE, 2012, 7, e32758.	2.5	128
18	Gene expression profile analysis of Drosophila melanogaster selected for resistance to environmental stressors. Journal of Evolutionary Biology, 2007, 20, 1624-1636.	1.7	127

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19	Rapid thermal adaptation during field temperature variations in Drosophila melanogaster. Cryobiology, 2008, 56, 159-162.	0.7	127
20	NORMA-Gene: A simple and robust method for qPCR normalization based on target gene data. BMC Bioinformatics, 2011, 12, 250.	2.6	122
21	Evolutionary and ecological patterns of thermal acclimation capacity in Drosophila: is it important for keeping up with climate change?. Current Opinion in Insect Science, 2016, 17, 98-104.	4.4	113
22	Proteomic profiling of thermal acclimation in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2013, 43, 352-365.	2.7	98
23	Sex specific effects of heat induced hormesis in Hsf-deficient Drosophila melanogaster. Experimental Gerontology, 2007, 42, 1123-1129.	2.8	90
24	Heat tolerance and the effect of mild heat stress on reproductive characters in Drosophila buzzatii males. Journal of Thermal Biology, 2006, 31, 280-286.	2.5	81
25	The influence of developmental stage on cold shock resistance and ability to cold-harden in Drosophila melanogaster. Journal of Insect Physiology, 2007, 53, 179-186.	2.0	80
26	Application of heat shock protein expression for detecting natural adaptation and exposure to stress in natural populations. Environmental Epigenetics, 2010, 56, 703-713.	1.8	79
27	Reorganization of membrane lipids during fast and slow cold hardening in Drosophila melanogaster. Physiological Entomology, 2006, 31, 328-335.	1.5	77
28	Evolution and plasticity of thermal performance: an analysis of variation in thermal tolerance and fitness in 22 <i>Drosophila</i> species. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180548.	4.0	77
29	Role of HSF activation for resistance to heat, cold and high-temperature knock-down. Journal of Insect Physiology, 2005, 51, 1320-1329.	2.0	76
30	Linear reaction norms of thermal limits in <i>Drosophila</i>: predictable plasticity in cold but not in heat tolerance. Functional Ecology, 2017, 31, 934-945.	3.6	74
31	Decreased heat-shock resistance and down-regulation of Hsp70 expression with increasing age in adultDrosophila melanogaster. Functional Ecology, 2002, 16, 379-384.	3.6	63
32	A test of quantitative genetic theory using Drosophila- effects of inbreeding and rate of inbreeding on heritabilities and variance components. Journal of Evolutionary Biology, 2005, 18, 763-770.	1.7	62
33	Predictability rather than amplitude of temperature fluctuations determines stress resistance in a natural population of <i>Drosophila simulans</i>. Journal of Evolutionary Biology, 2014, 27, 2113-2122.	1.7	62
34	Thermal fluctuations affect the transcriptome through mechanisms independent of average temperature. Scientific Reports, 2016, 6, 30975.	3.3	62
35	Studying stress responses in the post-genomic era: its ecological and evolutionary role. Journal of Biosciences, 2007, 32, 447-456.	1.1	57
36	Body metal concentrations and glycogen reserves in earthworms (Dendrobaena octaedra) from contaminated and uncontaminated forest soil. Environmental Pollution, 2011, 159, 190-197.	7.5	53

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37	HSP70 expression in the Copper butterfly <i>Lycaena tityrus</i> across altitudes and temperatures. Journal of Evolutionary Biology, 2009, 22, 172-178.	1.7	52
38	The potential of dietary polyunsaturated fatty acids to modulate eicosanoid synthesis and reproduction in Daphnia magna: A gene expression approach. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2012, 162, 449-454.	1.8	51
39	Climatic adaptation of Drosophila buzzatii populations in southeast Australia. Heredity, 2006, 96, 479-486.	2.6	49
40	A widespread thermodynamic effect, but maintenance of biological rates through space across life's major domains. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20181775.	2.6	47
41	Phenotypic plasticity is not affected by experimental evolution in constant, predictable or unpredictable fluctuating thermal environments. Journal of Evolutionary Biology, 2015, 28, 2078-2087.	1.7	46
42	Cryoprotective dehydration is widespread in Arctic springtails. Journal of Insect Physiology, 2011, 57, 1147-1153.	2.0	45
43	Natural adaptation to environmental stress via physiological clock-regulation of stress resistance in Drosophila. Ecology Letters, 2002, 5, 16-19.	6.4	44
44	Mild heat stress at a young age inDrosophila melanogaster leads to increased Hsp70 synthesis after stress exposure later in life. Journal of Genetics, 2003, 82, 89-94.	0.7	43
45	Cellular damage as induced by high temperature is dependent on rate of temperature change â€“ investigating consequences of ramping rates on molecular and organismal phenotypes in <i>Drosophila melanogaster</i> Meigen 1830. Journal of Experimental Biology, 2013, 216, 809-14.	1.7	43
46	Improving the efficiency of Trichogramma achaeae to control Tuta absoluta. BioControl, 2015, 60, 761-771.	2.0	42
47	Hsp70 protein levels and thermotolerance in <i>Drosophila subobscura</i>: a reassessment of the thermal coâ€adaptation hypothesis. Journal of Evolutionary Biology, 2012, 25, 691-700.	1.7	41
48	The rapid cold hardening response of Drosophila melanogaster: Complex regulation across different levels of biological organization. Journal of Insect Physiology, 2014, 62, 46-53.	2.0	39
49	Heat-induced hormesis in longevity of two sibling Drosophila species. Biogerontology, 2007, 8, 315-325.	3.9	38
50	Soil microarthropods are only weakly impacted after 13 years of repeated drought treatment in wet and dry heathland soils. Soil Biology and Biochemistry, 2013, 66, 110-118.	8.8	38
51	Induced cold tolerance mechanisms depend on duration of acclimation in the chill sensitive <i>Folsomia candida</i> (Collembola). Journal of Experimental Biology, 2013, 216, 1991-2000.	1.7	38
52	Reversibility of developmental heat and cold plasticity is asymmetric and has long lasting consequences for adult thermal tolerance. Journal of Experimental Biology, 2016, 219, 2726-32.	1.7	38
53	Genetic adaptation of earthworms to copper pollution: is adaptation associated with fitness costs in Dendrobaena octaedra?. Ecotoxicology, 2011, 20, 563-573.	2.4	37
54	Physiological responses to fluctuating thermal and hydration regimes in the chill susceptible insect, Thaumatotibia leucotreta. Journal of Insect Physiology, 2013, 59, 781-794.	2.0	37

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55	Effects of ozone on gene expression and lipid peroxidation in adults and larvae of the red flour beetle (Tribolium castaneum). Journal of Stored Products Research, 2011, 47, 378-384.	2.6	36
56	Candidate Genes Detected in Transcriptome Studies Are Strongly Dependent on Genetic Background. PLoS ONE, 2011, 6, e15644.	2.5	36
57	Laboratory maintenance does not alter ecological and physiological patterns among species: a <i>Drosophila</i> case study. Journal of Evolutionary Biology, 2018, 31, 530-542.	1.7	33
58	Bottlenecks, population differentiation and apparent selection at microsatellite loci in Australian Drosophila buzzatii. Heredity, 2009, 102, 389-401.	2.6	29
59	No trade-off between high and low temperature tolerance in a winter acclimatized Danish Drosophila subobscura population. Journal of Insect Physiology, 2015, 77, 9-14.	2.0	29
60	Increased frequency of drought reduces species richness of enchytraeid communities in both wet and dry heathland soils. Soil Biology and Biochemistry, 2012, 53, 43-49.	8.8	28
61	Metabolomic analysis of the selection response of Drosophila melanogaster to environmental stress: are there links to gene expression and phenotypic traits?. Die Naturwissenschaften, 2013, 100, 417-427.	1.6	27
62	Rising air temperatures will increase intertidal mussel abundance in the Arctic. Marine Ecology - Progress Series, 2017, 584, 91-104.	1.9	26
63	Post-eclosion decline in â€˜knock-downâ€™ thermal resistance and reduced effect of heat hardening in Drosophila melanogaster. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2007, 146, 355-359.	1.8	25
64	Lessons from the use of genetically modified <i>Drosophila melanogaster</i> in ecological studies: Hsf mutant lines show highly traitâ€specific performance in field and laboratory thermal assays. Functional Ecology, 2009, 23, 240-247.	3.6	25
65	Field tests reveal genetic variation for performance at low temperatures in <i>Drosophila melanogaster</i>. Functional Ecology, 2010, 24, 186-195.	3.6	25
66	Physiological and molecular mechanisms associated with cross tolerance between hypoxia and low temperature in Thaumatotibia leucotreta. Journal of Insect Physiology, 2015, 82, 75-84.	2.0	25
67	Complex patterns of geographic variation in heat tolerance and Hsp70 expression levels in the common frog Rana temporaria. Journal of Thermal Biology, 2009, 34, 49-54.	2.5	24
68	Tropical to subpolar gradient in phospholipid composition suggests adaptive tuning of biological membrane function in drosophilids. Functional Ecology, 2016, 30, 759-768.	3.6	24
69	Upper thermal tolerance in aquatic insects. Current Opinion in Insect Science, 2015, 11, 78-83.	4.4	23
70	Cold acclimation reduces predation rate and reproduction but increases cold- and starvation tolerance in the predatory mite Gaeolaelaps aculeifer Canestrini. Biological Control, 2017, 114, 150-157.	3.0	23
71	Acclimation responses to shortâ€term temperature treatments during early life stages causes long lasting changes in spontaneous activity of adult <i>Drosophila melanogaster</i>. Physiological Entomology, 2017, 42, 404-411.	1.5	23
72	Phototransduction genes are up-regulated in a global gene expression study of Drosophila melanogaster selected for heat resistance. Cell Stress and Chaperones, 2006, 11, 325.	2.9	23

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73	Interactions between controlled atmospheres and low temperature tolerance: a review of biochemical mechanisms. Frontiers in Physiology, 2011, 2, 92.	2.8	22
74	Variation in metallothionein gene expression is associated with adaptation to copper in the earthworm Dendrobaena octaedra. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2013, 157, 220-226.	2.6	22
75	Temperature preference across life stages and acclimation temperatures investigated in four species of Drosophila. Journal of Thermal Biology, 2019, 86, 102428.	2.5	22
76	Locomotor activity of Drosophila melanogaster in high temperature environments: plastic and evolutionary responses. Climate Research, 2010, 43, 127-134.	1.1	22
77	Cold tolerance is unaffected by oxygen availability despite changes in anaerobic metabolism. Scientific Reports, 2016, 6, 32856.	3.3	20
78	Environmental heterogeneity does not affect levels of phenotypic plasticity in natural populations of three <i>Drosophila</i> species. Ecology and Evolution, 2017, 7, 2716-2724.	1.9	20
79	Cold acclimation increases depolarization resistance and tolerance in muscle fibers from a chill-susceptible insect,<i>Locusta migratoria</i>. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2020, 319, R439-R447.	1.8	20
80	Effects of relative emergence time on heat stress resistance traits, longevity and hsp70 expression level in Drosophila melanogaster. Journal of Thermal Biology, 2004, 29, 195-203.	2.5	19
81	Temporal gene expression profiles in a palaearctic springtail as induced by desiccation, cold exposure and during recovery. Functional Ecology, 2010, 24, 838-846.	3.6	18
82	Evolutionary adaptation to environmental stressors: a common response at the proteomic level. Evolution; International Journal of Organic Evolution, 2017, 71, 1627-1642.	2.3	18
83	High spatial variation in terrestrial arthropod species diversity and composition near the Greenland ice cap. Polar Biology, 2016, 39, 2263-2272.	1.2	17
84	Critical thermal limits affected differently by developmental and adult thermal fluctuations. Journal of Experimental Biology, 2017, 220, 4471-4478.	1.7	17
85	How much starvation, desiccation and oxygen depletion can Drosophila melanogaster tolerate before its upper thermal limits are affected?. Journal of Insect Physiology, 2018, 111, 1-7.	2.0	17
86	Expression of thermal tolerance genes in two Drosophila species with different acclimation capacities. Journal of Thermal Biology, 2019, 84, 200-207.	2.5	17
87	Are commercial stocks of biological control agents genetically depauperate? â€“ A case study on the pirate bug Orius majusculus Reuter. Biological Control, 2018, 127, 31-38.	3.0	16
88	A replicated climate change field experiment reveals rapid evolutionary response in an ecologically important soil invertebrate. Global Change Biology, 2016, 22, 2370-2379.	9.5	15
89	Constitutive up-regulation of Turandot genes rather than changes in acclimation ability is associated with the evolutionary adaptation to temperature fluctuations in Drosophila simulans. Journal of Insect Physiology, 2018, 104, 40-47.	2.0	15
90	Physiological and molecular responses of springtails exposed to phenanthrene and drought. Environmental Pollution, 2014, 184, 370-376.	7.5	14

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91	Molecular Responses to Thermal and Osmotic Stress in Arctic Intertidal Mussels (Mytilus edulis): The Limits of Resilience. Genes, 2022, 13, 155.	2.4	14
92	Roles of carbohydrate reserves for local adaptation to low temperatures in the freeze tolerant oligochaete Enchytraeus albidus. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2014, 184, 167-177.	1.5	13
93	Geographic variation in responses of European yellow dung flies to thermal stress. Journal of Thermal Biology, 2018, 73, 41-49.	2.5	13
94	Heat tolerance and gene expression responses to heat stress in threespine sticklebacks from ecologically divergent environments. Journal of Thermal Biology, 2018, 75, 88-96.	2.5	13
95	Ecologically relevant stress resistance: from microarrays and quantitative trait loci to candidate genes â€" A research plan and preliminary results usingDrosophila as a model organism and climatic and genetic stress as model stresses. Journal of Biosciences, 2004, 29, 503-511.	1.1	12
96	Freshening increases the susceptibility to heat stress in intertidal mussels (<i>Mytilus edulis</i>) from the Arctic. Journal of Animal Ecology, 2021, 90, 1515-1524.	2.8	12
97	Acclimation, duration and intensity of cold exposure determine the rate of cold stress accumulation and mortality in Drosophila suzukii. Journal of Insect Physiology, 2021, 135, 104323.	2.0	12
98	Evolutionary Theory and Studies of Model Organisms Predict a Cautiously Positive Perspective on the Therapeutic Use of Hormesis for Healthy Aging in Humans. Dose-Response, 2010, 8, dose-response.0.	1.6	11
99	Chilling slows anaerobic metabolism to improve anoxia tolerance of insects. Metabolomics, 2016, 12, 1.	3.0	11
100	Few genetic and environmental correlations between life history and stress resistance traits affect adaptation to fluctuating thermal regimes. Heredity, 2016, 117, 149-154.	2.6	11
101	A transcriptomics assessment of oxygen-temperature interactions reveals novel candidate genes underlying variation in thermal tolerance and survival. Journal of Insect Physiology, 2018, 106, 179-188.	2.0	11
102	Testing the thermal limits: Non-linear reaction norms drive disparate thermal acclimation responses in Drosophila melanogaster. Journal of Insect Physiology, 2019, 118, 103946.	2.0	11
103	Behavioural and physiological responses to thermal stress in a social spider. Functional Ecology, 2021, 35, 2728-2742.	3.6	11
104	Temperature-Induced Hormesis in Drosophila. , 2008, , 65-79.		10
105	Genetic variability and evolution of cold-tolerance. , 0, , 276-296.		9
106	Pronounced Plastic and Evolutionary Responses to Unpredictable Thermal Fluctuations in Drosophila simulans. Frontiers in Genetics, 2020, 11, 555843.	2.3	9
107	Freezing of body fluids induces metallothionein gene expression in earthworms (Dendrobaena) Tj ETQq1 1 0.784314 rgBT /Overlock 10 44-48.	2.6	8
108	Transcriptome sequencing, de novo assembly and annotation of the freeze tolerant earthworm, Dendrobaena octaedra. Gene Reports, 2018, 13, 180-191.	0.8	8

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109	Contrasting Manual and Automated Assessment of Thermal Stress Responses and Larval Body Size in Black Soldier Flies and Houseflies. Insects, 2021, 12, 380.	2.2	8
110	Effects of rearing and induction temperature on the temporal dynamics of heat shock protein 70 expression in a butterfly. Physiological Entomology, 2012, 37, 103-108.	1.5	7
111	Food quality of Ephestia eggs, the aphid Rhopalosiphum padi and mixed diet for Orius majusculus. Journal of Applied Entomology, 2020, 144, 251-262.	1.8	7
112	A comparison of low temperature biology of Pieris rapae from Ontario, Canada, and Yakutia, Far Eastern Russia. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2020, 242, 110649.	1.8	7
113	What can physiological capacity and behavioural choice tell us about thermal adaptation?. Biological Journal of the Linnean Society, 2021, 132, 44-52.	1.6	7
114	Temperature Affects Biological Control Efficacy: A Microcosm Study of Trichogramma achaeae. Insects, 2021, 12, 95.	2.2	7
115	Joint impact of competition, summer precipitation, and maternal effects on survival and reproduction in the perennial Hieracium umbellatum. Evolutionary Ecology, 2018, 32, 529-545.	1.2	6
116	Evidence for genetic isolation and local adaptation in the field cricket <i>Gryllus campestris</i>. Journal of Evolutionary Biology, 2021, 34, 1624-1636.	1.7	6
117	Fungal infections lead to shifts in thermal tolerance and voluntary exposure to extreme temperatures in both prey and predator insects. Scientific Reports, 2021, 11, 21710.	3.3	6
118	Effects of predator exposure on Hsp70 expression and survival in tadpoles of the Common Frog (RanaÂtemporaria). Canadian Journal of Zoology, 2011, 89, 1249-1255.	1.0	5
119	Candidate gene expression associated with geographical variation in cryoprotective dehydration of Megaphorura arctica. Journal of Insect Physiology, 2013, 59, 804-811.	2.0	5
120	Interactive effects of temperature and time on cold tolerance and spring predation in overwintering soil predatory mites (Gaeolaelaps aculeifer Canestrini). Biological Control, 2019, 132, 169-176.	3.0	5
121	Preyâ€specific impact of cold preâ€exposure on kill rate and reproduction. Journal of Animal Ecology, 2019, 88, 258-268.	2.8	5
122	No costs on freeze tolerance in genetically copper adapted earthworm populations (Dendrobaena) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 204-207.	2.6	4
123	Molecular and physiological insights into the potential efficacy of CO 2 -augmented postharvest cold treatments for false codling moth. Postharvest Biology and Technology, 2017, 132, 109-118.	6.0	4
124	Prey-specific experience affects prey preference and time to kill in the soil predatory mite Gaeolaelaps aculeifer Canestrini. Biological Control, 2019, 139, 104076.	3.0	4
125	Validating the automation of different measures of high temperature tolerance of small terrestrial insects. Journal of Insect Physiology, 2022, 137, 104362.	2.0	4
126	Analysis of heat and cold tolerance of a freeze-tolerant soil invertebrate distributed from temperate to Arctic regions: evidence of selection for extreme cold tolerance. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2022, 192, 435-445.	1.5	3

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127	Molecular mechanisms underlying plasticity in a thermally varying environment. Molecular Ecology, 2022, , .	3.9	3
128	Drawing the line: Linear or non-linear reaction norms in response to adult acclimation on lower thermal limits. Journal of Insect Physiology, 2020, 124, 104075.	2.0	2
129	Acclimation for optimisation: effects of temperature on development, reproduction and size of <i>Trichogramma achaeae</i>. Biocontrol Science and Technology, 2022, 32, 60-73.	1.3	2
130	Harnessing thermal plasticity to enhance the performance of mass-reared insects: opportunities and challenges. Bulletin of Entomological Research, 2022, , 1-10.	1.0	2
131	Field and laboratory studies on drought tolerance and water balance in adult Pergalumna nervosa (Acari: Oribatida: Galumnidae). European Journal of Entomology, 0, 114, 86-91.	1.2	1
132	Costs of adaptation and expression of metallothionein in earthworm populations adapted to copper polluted soils. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2012, 163, S13.	1.8	0
133	Survival and predation rate of wild-caught and commercially produced Orius majusculus (Reuter) (Hemiptera: Anthocoridae). Bulletin of Entomological Research, 2021, , 1-7.	1.0	0
134	Tetraploid Lolium Perenne genotypes Identified in Danish Semi-Natural Habitats. American International Journal of Biology, 2014, 2, .	0.2	0