Gretchen E Hofmann

List of Publications by Year
in descending order

79	11,257	61984 43	69250 77
papers	citations	h-index	g-index

80	80	80	9696
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	HEAT-SHOCK PROTEINS, MOLECULAR CHAPERONES, AND THE STRESS RESPONSE: Evolutionary and Ecological Physiology. Annual Review of Physiology, 1999, 61, 243-282.	13.1	3,624
2	High-Frequency Dynamics of Ocean pH: A Multi-Ecosystem Comparison. PLoS ONE, 2011, 6, e28983.	2.5	782
3	Climate Change and Latitudinal Patterns of Intertidal Thermal Stress. Science, 2002, 298, 1015-1017.	12.6	603
4	Living in the Now: Physiological Mechanisms to Tolerate a Rapidly Changing Environment. Annual Review of Physiology, 2010, 72, 127-145.	13.1	497
5	Microhabitats, Thermal Heterogeneity, and Patterns of Physiological Stress in the Rocky Intertidal Zone. Biological Bulletin, 2001, 201, 374-384.	1.8	447
6	The Effect of Ocean Acidification on Calcifying Organisms in Marine Ecosystems: An Organism-to-Ecosystem Perspective. Annual Review of Ecology, Evolution, and Systematics, 2010, 41, 127-147.	8.3	434
7	MOSAIC PATTERNS OF THERMAL STRESS IN THE ROCKY INTERTIDAL ZONE: IMPLICATIONS FOR CLIMATE CHANGE. Ecological Monographs, 2006, 76, 461-479.	5.4	392
8	Transcriptomic response of sea urchin larvae<i>Strongylocentrotus purpuratus</i>to CO2-driven seawater acidification. Journal of Experimental Biology, 2009, 212, 2579-2594.	1.7	276
9	Adjusting the thermostat: the threshold induction temperature for the heat-shock response in intertidal mussels (genus <i>Mytilus</i>) changes as a function of thermal history. Journal of Experimental Biology, 2001, 204, 3571-3579.	1.7	261
10	Natural variation and the capacity to adapt to ocean acidification in the keystone sea urchin <i><scp>S</scp>trongylocentrotus purpuratus</i>. Global Change Biology, 2013, 19, 2536-2546.	9.5	177
11	Adaptation and the physiology of ocean acidification. Functional Ecology, 2013, 27, 980-990.	3.6	153
12	Defining the limits of physiological plasticity: how gene expression can assess and predict the consequences of ocean change. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1733-1745.	4.0	145
13	Transcriptomic responses to ocean acidification in larval sea urchins from a naturally variable <scp>pH</scp> environment. Molecular Ecology, 2013, 22, 1609-1625.	3.9	118
14	Interacting environmental mosaics drive geographic variation in mussel performance and predation vulnerability. Ecology Letters, 2016, 19, 771-779.	6.4	118
15	Regulation of heat shock genes in isolated hepatocytes from an Antarctic fish, Trematomus bernacchii. Journal of Experimental Biology, 2004, 207, 3649-3656.	1.7	115
16	Patterns of Hsp gene expression in ectothermic marine organisms on small to large biogeographic scales. Integrative and Comparative Biology, 2005, 45, 247-255.	2.0	115
17	Predicted impact of ocean acidification on a marine invertebrate: elevated CO2 alters response to thermal stress in sea urchin larvae. Marine Biology, 2009, 156, 439-446.	1.5	115
18	Constitutive roles for inducible genes: evidence for the alteration in expression of the induciblehsp70gene in Antarctic notothenioid fishes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2004, 287, R429-R436.	1.8	106

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19	The ocean acidification seascape and its relationship to the performance of calcifying marine invertebrates: Laboratory experiments on the development of urchin larvae framed by environmentally-relevant pCO2/pH. Journal of Experimental Marine Biology and Ecology, 2011, 400, 288-295.	1.5	105
20	Temperature and CO ₂ additively regulate physiology, morphology and genomic responses of larval sea urchins, <i>Strongylocentrotus purpuratus</i>. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130155.	2.6	98
21	Ecologically Relevant Variation in Induction and Function of Heat Shock Proteins in Marine Organisms. American Zoologist, 1999, 39, 889-900.	0.7	97
22	A laboratoryâ€based, experimental system for the study of ocean acidification effects on marine invertebrate larvae. Limnology and Oceanography: Methods, 2010, 8, 441-452.	2.0	89
23	Ocean pH timeâ€series and drivers of variability along the northern <scp>C</scp>hannel <scp>I</scp>slands, <scp>C</scp>alifornia, <scp>USA</scp>. Limnology and Oceanography, 2016, 61, 953-968.	3.1	84
24	Thermal history-dependent expression of the hsp70 gene in purple sea urchins: Biogeographic patterns and the effect of temperature acclimation. Journal of Experimental Marine Biology and Ecology, 2005, 327, 134-143.	1.5	81
25	Thermotolerance and heat-shock protein expression in Northeastern Pacific Nucella species with different biogeographical ranges. Marine Biology, 2005, 146, 985-993.	1.5	79
26	Effect of pH on Gene Expression and Thermal Tolerance of Early Life History Stages of Red Abalone (<i>Haliotis rufescens</i>). Journal of Shellfish Research, 2010, 29, 429-439.	0.9	79
27	Some like it hot, some like it cold: the heat shock response is found in New Zealand but not Antarctic notothenioid fishes. Journal of Experimental Marine Biology and Ecology, 2005, 316, 79-89.	1.5	77
28	Molecular Chaperones in Ectothermic Marine Animals: Biochemical Function and Gene Expression. Integrative and Comparative Biology, 2002, 42, 808-814.	2.0	76
29	Thermal acclimation changes DNA-binding activity of heat shock factor 1(HSF1) in the goby<i>Gillichthys mirabilis</i>: implications for plasticity in the heat-shock response in natural populations. Journal of Experimental Biology, 2002, 205, 3231-3240.	1.7	75
30	Patterns of Variation in Levels of Hsp70 in Natural Rocky Shore Populations from Microscales to Mesoscales. Integrative and Comparative Biology, 2002, 42, 815-824.	2.0	70
31	Long-term, high frequency in situ measurements of intertidal mussel bed temperatures using biomimetic sensors. Scientific Data, 2016, 3, 160087.	5.3	69
32	Responses of the Metabolism of the Larvae of Pocillopora damicornis to Ocean Acidification and Warming. PLoS ONE, 2014, 9, e96172.	2.5	68
33	Ocean acidification promotes broad transcriptomic responses in marine metazoans: a literature survey. Frontiers in Zoology, 2020, 17, 7.	2.0	68
34	Transcriptomics reveal transgenerational effects in purple sea urchin embryos: Adult acclimation to upwelling conditions alters the response of their progeny to differential <i>p</i>CO₂ levels. Molecular Ecology, 2018, 27, 1120-1137.	3.9	67
35	Interactive effects of elevated temperature and pCO2 on early-life-history stages of the giant kelp Macrocystis pyrifera. Journal of Experimental Marine Biology and Ecology, 2014, 457, 51-58.	1.5	64
36	Marine macrophysiology: Studying physiological variation across large spatial scales in marine systems. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2007, 147, 821-827.	1.8	62

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37	Transcriptomic responses to seawater acidification among sea urchin populations inhabiting a natural pH mosaic. Molecular Ecology, 2017, 26, 2257-2275.	3.9	62
38	Transcriptome profiles link environmental variation and physiological response of <i>Mytilus californianus</i> between Pacific tides. Functional Ecology, 2012, 26, 144-155.	3.6	61
39	Early developmental gene regulation in <i>Strongylocentrotus purpuratus</i> embryos in response to elevated CO2 seawater conditions. Journal of Experimental Biology, 2012, 215, 2445-2454.	1.7	57
40	Near-shore Antarctic pH variability has implications for the design of oceanacidification experiments. Scientific Reports, 2015, 5, .	3.3	53
41	Genomics-fueled approaches to current challenges in marine ecology. Trends in Ecology and Evolution, 2005, 20, 305-311.	8.7	52
42	Magnitude and Duration of Thermal Stress Determine Kinetics ofhspGene Regulation in the GobyGillichthys mirabilis. Physiological and Biochemical Zoology, 2004, 77, 570-581.	1.5	48
43	Thermal tolerance of Strongylocentrotus purpuratus early life history stages: mortality, stress-induced gene expression and biogeographic patterns. Marine Biology, 2010, 157, 2677-2687.	1.5	48
44	Antarctic echinoids and climate change: a major impact on the brooding forms. Global Change Biology, 2011, 17, 734-744.	9.5	45
45	Transcriptomic response of the Antarctic pteropod Limacina helicina antarctica to ocean acidification. BMC Genomics, 2017, 18, 812.	2.8	43
46	Differing patterns of hsp70 gene expression in invasive and native kelp species: evidence for acclimation-induced variation. Journal of Applied Phycology, 2008, 20, 915-924.	2.8	42
47	Turning up the heat: The effects of thermal acclimation on the kinetics of hsp70 gene expression in the eurythermal goby, Gillichthys mirabilis. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2006, 143, 435-446.	1.8	41
48	Expression of 70 kDa heat shock proteins in antarctic and New Zealand nototheniold fish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2000, 125, 229-238.	1.8	40
49	Development Under Elevated <i>p</i>CO₂ Conditions Does Not Affect Lipid Utilization and Protein Content in Early Life-History Stages of the Purple Sea Urchin, <i>Strongylocentrotus purpuratus</i>. Biological Bulletin, 2012, 223, 312-327.	1.8	40
50	Comparison of Hsc70 orthologs from polar and temperate notothenioid fishes: differences in prevention of aggregation and refolding of denatured proteins. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 288, R1195-R1202.	1.8	39
51	Signals of resilience to ocean change: high thermal tolerance of early stage Antarctic sea urchins (Sterechinus neumayeri) reared under present-day and future pCO2 and temperature. Polar Biology, 2014, 37, 967-980.	1.2	38
52	Physiological plasticity and local adaptation to elevated <scp><i>p</i>CO</scp>₂ in calcareous algae: an ontogenetic and geographic approach. Evolutionary Applications, 2016, 9, 1043-1053.	3.1	38
53	Variability of Seawater Chemistry in a Kelp Forest Environment Is Linked to in situ Transgenerational Effects in the Purple Sea Urchin, Strongylocentrotus purpuratus. Frontiers in Marine Science, 2019, 6, .	2.5	38
54	New Tools to Meet New Challenges: Emerging Technologies for Managing Marine Ecosystems for Resilience. BioScience, 2008, 58, 43-52.	4.9	37

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55	Transgenerational effects in an ecological context: Conditioning of adult sea urchins to upwelling conditions alters maternal provisioning and progeny phenotype. Journal of Experimental Marine Biology and Ecology, 2019, 517, 65-77.	1.5	37
56	Ocean Acidification and Fertilization in the Antarctic Sea Urchin <i>Sterechinus neumayeri</i>: the Importance of Polyspermy. Environmental Science & Technology, 2014, 48, 713-722.	10.0	34
57	Growth Attenuation with Developmental Schedule Progression in Embryos and Early Larvae of Sterechinus neumayeri Raised under Elevated CO2. PLoS ONE, 2013, 8, e52448.	2.5	33
58	High pCO2 affects body size, but not gene expression in larvae of the California mussel (Mytilus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	2.5	32
59	Lipid consumption in coral larvae differs among sites: a consideration of environmental history in a global ocean change scenario. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162825.	2.6	32
60	Biogeographic variation in Mytilus galloprovincialis heat shock gene expression across the eastern Pacific range. Journal of Experimental Marine Biology and Ecology, 2009, 376, 37-42.	1.5	30
61	High-frequency observations of pH under Antarctic sea ice in the southern Ross Sea. Antarctic Science, 2011, 23, 607-613.	0.9	30
62	Beyond the benchtop and the benthos: Dataset management planning and design for time series of ocean carbonate chemistry associated with DurafetÂ®-based pH sensors. Ecological Informatics, 2016, 36, 209-220.	5.2	29
63	Effects of temperature and pCO 2 on lipid use and biological parameters of planulae of Pocillopora damicornis. Journal of Experimental Marine Biology and Ecology, 2015, 473, 43-52.	1.5	27
64	Abiotic versus Biotic Drivers of Ocean pH Variation under Fast Sea Ice in McMurdo Sound, Antarctica. PLoS ONE, 2014, 9, e107239.	2.5	26
65	Sensitivity of sea urchin fertilization to pH varies across a natural pH mosaic. Ecology and Evolution, 2017, 7, 1737-1750.	1.9	26
66	Changes in Genome-Wide Methylation and Gene Expression in Response to Future pCO2 Extremes in the Antarctic Pteropod Limacina helicina antarctica. Frontiers in Marine Science, 2020, 6, .	2.5	26
67	Temperature interactions of the molecular chaperone Hsc70 from the eurythermal marine goby <i>Gillichthys mirabilis</i>. Journal of Experimental Biology, 2001, 204, 2675-2682.	1.7	26
68	Examining the Role of DNA Methylation in Transcriptomic Plasticity of Early Stage Sea Urchins: Developmental and Maternal Effects in a Kelp Forest Herbivore. Frontiers in Marine Science, 2020, 7, .	2.5	25
69	Spatial and temporal variation in distribution and protein ubiquitination for Mytilus congeners in the California hybrid zone. Marine Biology, 2008, 154, 1067-1075.	1.5	21
70	Thermal ecophysiology of gametophytes cultured from invasive Undaria pinnatifida (Harvey) Suringar in coastal California harbors. Journal of Experimental Marine Biology and Ecology, 2008, 367, 164-173.	1.5	21
71	Host and Symbionts in Pocillopora damicornis Larvae Display Different Transcriptomic Responses to Ocean Acidification and Warming. Frontiers in Marine Science, 2018, 5, .	2.5	20
72	Additive effects of pCO2 and temperature on respiration rates of the Antarctic pteropod Limacina helicina antarctica. , 2017, 5, cox064.		19

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73	Ocean acidification research in the â€˜post-genomicâ€™ era: Roadmaps from the purple sea urchin Strongylocentrotus purpuratus. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 185, 33-42.	1.8	18
74	The molecular chaperone Hsc70 from a eurythermal marine goby exhibits temperature insensitivity during luciferase refolding assays. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2004, 138, 1-7.	1.8	11
75	Morphological and genetic variation in <i>Egregia menziesii</i> over a latitudinal gradient. Botanica Marina, 2007, 50, 159-170.	1.2	11
76	Gene expression patterns of red sea urchins (Mesocentrotus franciscanus) exposed to different combinations of temperature and pCO2 during early development. BMC Genomics, 2021, 22, 32.	2.8	6
77	Temperature differentially affects adenosine triphosphatase activity in Hsc70 orthologs from Antarctic and New Zealand notothenioid fishes. Cell Stress and Chaperones, 2005, 10, 104.	2.9	3
78	Differing patterns of hsp70 gene expression in invasive and native kelp species: evidence for acclimation-induced variation. , 2007, , 465-474.		1
79	Politics: The long shadow of the shutdown. Nature, 2013, 502, 431-432.	27.8	1