Piero Calosi

List of Publications by Year
in descending order

97 papers	5,654 citations	87843 38 h-index	82499 72 g-index
103 all docs	103 docs citations	103 times ranked	5607 citing authors

#	Article	IF	Citations
1	Physiological Correlates of Geographic Range in Animals. Annual Review of Ecology, Evolution, and Systematics, 2011, 42, 155-179.	3.8	350
2	Evolution in an acidifying ocean. Trends in Ecology and Evolution, 2014, 29, 117-125.	4.2	324
3	Macrophysiology: A Conceptual Reunification. American Naturalist, 2009, 174, 595-612.	1.0	298
4	Thermal tolerance, acclimatory capacity and vulnerability to global climate change. Biology Letters, 2008, 4, 99-102.	1.0	292
5	What determines a speciesâ€™ geographical range? Thermal biology and latitudinal range size relationships in European diving beetles (Coleoptera: Dytiscidae). Journal of Animal Ecology, 2010, 79, 194-204.	1.3	280
6	Oxygen supply in aquatic ectotherms: Partial pressure and solubility together explain biodiversity and size patterns. Ecology, 2011, 92, 1565-1572.	1.5	254
7	Thermal tolerance patterns across latitude and elevation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20190036.	1.8	215
8	Predicted levels of future ocean acidification and temperature rise could alter community structure and biodiversity in marine benthic communities. Oikos, 2011, 120, 661-674.	1.2	181
9	Adaptation and acclimatization to ocean acidification in marine ectotherms: an<i>in situ</i>transplant experiment with polychaetes at a shallow CO₂vent system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120444.	1.8	165
10	GlobTherm, a global database on thermal tolerances for aquatic and terrestrial organisms. Scientific Data, 2018, 5, 180022.	2.4	164
11	The evolution of critical thermal limits of life on Earth. Nature Communications, 2021, 12, 1198.	5.8	149
12	Scaling up experimental ocean acidification and warming research: from individuals to the ecosystem. Global Change Biology, 2015, 21, 130-143.	4.2	148
13	Integrating metabolic performance, thermal tolerance, and plasticity enables for more accurate predictions on species vulnerability to acute and chronic effects of global warming. Global Change Biology, 2015, 21, 181-194.	4.2	140
14	Distribution of sea urchins living near shallow water CO2 vents is dependent upon species acidâ€“base and ion-regulatory abilities. Marine Pollution Bulletin, 2013, 73, 470-484.	2.3	133
15	Coralline algal structure is more sensitive to rate, rather than the magnitude, of ocean acidification. Global Change Biology, 2013, 19, 3621-3628.	4.2	132
16	Dispersal ability rather than ecological tolerance drives differences in range size between lentic and lotic water beetles (Coleoptera: Hydrophilidae). Journal of Biogeography, 2012, 39, 984-994.	1.4	94
17	Effects of ocean acidification and elevated temperature on shell plasticity and its energetic basis in an intertidal gastropod. Marine Ecology - Progress Series, 2013, 472, 155-168.	0.9	94
18	Will variation among genetic individuals influence species responses to global climate change?. Oikos, 2011, 120, 675-689.	1.2	92

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19	Impact of medium-term exposure to CO2 enriched seawater on the physiological functions of the velvet swimming crab Necora puber. Aquatic Biology, 2010, 10, 11-21.	0.5	83
20	Regional adaptation defines sensitivity to future ocean acidification. Nature Communications, 2017, 8, 13994.	5.8	78
21	Scaling of thermal tolerance with body mass and genome size in ectotherms: a comparison between water- and air-breathers. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20190035.	1.8	78
22	Exposure to Elevated Temperature and P<scp>co</scp>₂Reduces Respiration Rate and Energy Status in the Periwinkle<i>Littorina littorea</i>. Physiological and Biochemical Zoology, 2011, 84, 583-594.	0.6	75
23	Elevated temperature elicits greater effects than decreased pH on the development, feeding and metabolism of northern shrimp (Pandalus borealis) larvae. Marine Biology, 2013, 160, 2037-2048.	0.7	75
24	Multiâ€generational responses of a marine polychaete to a rapid change in seawater <i>p</i><scp>CO</scp>₂. Evolutionary Applications, 2016, 9, 1082-1095.	1.5	71
25	To brood or not to brood: Are marine invertebrates that protect their offspring more resilient to ocean acidification?. Scientific Reports, 2015, 5, 12009.	1.6	59
26	Oxygen limits heat tolerance and drives heat hardening in the aquatic nymphs of the gill breathing damselfly Calopteryx virgo (Linnaeus, 1758). Journal of Thermal Biology, 2012, 37, 224-229.	1.1	55
27	Will life find a way? Evolution of marine species under global change. Evolutionary Applications, 2016, 9, 1035-1042.	1.5	55
28	Exoskeleton dissolution with mechanoreceptor damage in larval Dungeness crab related to severity of present-day ocean acidification vertical gradients. Science of the Total Environment, 2020, 716, 136610.	3.9	54
29	Estimating the ecological, economic and social impacts of ocean acidification and warming on <scp>UK</scp> fisheries. Fish and Fisheries, 2017, 18, 389-411.	2.7	53
30	Stage-Specific Changes in Physiological and Life-History Responses to Elevated Temperature and P<scp>co</scp>₂during the Larval Development of the European Lobster<i>Homarus gammarus</i>(L.). Physiological and Biochemical Zoology, 2015, 88, 494-507.	0.6	50
31	Determinants of the PIC : POC response in the coccolithophore <i>Emiliania huxleyi</i> under future ocean acidification scenarios. Limnology and Oceanography, 2011, 56, 1168-1178.	1.6	47
32	Can multi-generational exposure to ocean warming and acidification lead to the adaptation of life-history and physiology in a marine metazoan?. Journal of Experimental Biology, 2017, 220, 551-563.	0.8	47
33	The evolution of phenotypic plasticity under global change. Scientific Reports, 2017, 7, 17253.	1.6	47
34	The impact of ocean acidification and warming on the skeletal mechanical properties of the sea urchin Paracentrotus lividus from laboratory and field observations. ICES Journal of Marine Science, 2016, 73, 727-738.	1.2	46
35	The effect of chronic and acute low pH on the intracellular DMSP production and epithelial cell morphology of red coralline algae. Marine Biology Research, 2012, 8, 756-763.	0.3	42
36	Multiple Physiological Responses to Multiple Environmental Challenges: An Individual Approach. Integrative and Comparative Biology, 2013, 53, 660-670.	0.9	42

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37	Contrasting physiological responses to future ocean acidification among Arctic copepod populations. Global Change Biology, 2018, 24, e365-e377.	4.2	42
38	Mediterranean Talitrus saltator (Crustacea, Amphipoda) as a biomonitor of heavy metals contamination. Marine Pollution Bulletin, 2004, 48, 526-532.	2.3	41
39	The sensitivity of the early benthic juvenile stage of the European lobster Homarus gammarus (L.) to elevated pCO2 and temperature. Marine Biology, 2016, 163, 1.	0.7	40
40	Can transâ€generational experiments be used to enhance species resilience to ocean warming and acidification?. Evolutionary Applications, 2016, 9, 1133-1146.	1.5	40
41	Impact of exposure to elevated pCO₂on the physiology and behaviour of an important ecosystem engineer, the burrowing shrimp Upogebia deltaura. Aquatic Biology, 2012, 15, 73-86.	0.5	39
42	Short-term exposure to hypercapnia does not compromise feeding, acidâ€“base balance or respiration of<i>Patella vulgata</i>but surprisingly is accompanied by radula damage. Journal of the Marine Biological Association of the United Kingdom, 2010, 90, 1379-1384.	0.4	38
43	First Evidence of Altered Sensory Quality in a Shellfish Exposed to Decreased pH Relevant to Ocean Acidification. Journal of Shellfish Research, 2014, 33, 857-861.	0.3	36
44	Does sex really matter? Explaining intraspecies variation in ocean acidification responses. Biology Letters, 2017, 13, 20160761.	1.0	36
45	The sandhopper Talitrus saltator (Crustacea: Amphipoda) as a biomonitor of trace metal bioavailabilities in European coastal waters. Marine Pollution Bulletin, 2009, 58, 39-44.	2.3	35
46	Using natural analogues to investigate the effects of climate change and ocean acidification on Northern ecosystems. ICES Journal of Marine Science, 2018, 75, 2299-2311.	1.2	34
47	Energy metabolism and cellular homeostasis trade-offs provide the basis for a new type of sensitivity to ocean acidification in a marine polychaete at a high CO2 vent: adenylate and phosphagen energy pools vs. carbonic anhydrase. Journal of Experimental Biology, 2015, 218, 2148-51.	0.8	30
48	Energy metabolism and survival of the juvenile recruits of the American lobster (Homarus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td 143, 111-123.	1.1	30
49	Marine Metazoan Modern Mass Extinction: Improving Predictions by Integrating Fossil, Modern, and Physiological Data. Annual Review of Marine Science, 2019, 11, 369-390.	5.1	29
50	Reduced salinities compromise the thermal tolerance of hypersaline specialist diving beetles. Physiological Entomology, 2010, 35, 265-273.	0.6	28
51	Does plasticity in thermal tolerance trade off with inherent tolerance? The influence of setal tracheal gills on thermal tolerance and its plasticity in a group of European diving beetles. Journal of Insect Physiology, 2018, 106, 163-171.	0.9	24
52	Increasing Costs Due to Ocean Acidification Drives Phytoplankton to Be More Heavily Calcified: Optimal Growth Strategy of Coccolithophores. PLoS ONE, 2010, 5, e13436.	1.1	24
53	The diving response of a diving beetle: effects of temperature and acidification. Journal of Zoology, 2007, 273, 289-297.	0.8	23
54	Physiological capacity and environmental tolerance in two sandhopper species with contrasting geographical ranges: Talitrus saltator and Talorchestia ugolinii. Marine Biology, 2007, 151, 1647-1655.	0.7	22

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55	Metabolic responses to high pCO2 conditions at a CO2 vent site in juveniles of a marine isopod species assemblage. Marine Biology, 2016, 163, 211.	0.7	22
56	Does Ecophysiology Determine Invasion Success? A Comparison between the Invasive Boatman Trichocorixa verticalis verticalis and the Native Sigara lateralis (Hemiptera, Corixidae) in South-West Spain. PLoS ONE, 2013, 8, e63105.	1.1	20
57	Living in warmer more acidic oceans retards physiological recovery from tidal emersion in the velvet swimming crab<i>Necora puber</i>(L.). Journal of Experimental Biology, 2014, 217, 2499-508.	0.8	20
58	An <i>inÂsitu</i> assessment of local adaptation in a calcifying polychaete from a shallow <scp>CO</scp>₂ vent system. Evolutionary Applications, 2016, 9, 1054-1071.	1.5	20
59	Resilience to ocean acidification: decreased carbonic anhydrase activity in sea anemones under high pCO2 conditions. Marine Ecology - Progress Series, 2016, 559, 257-263.	0.9	20
60	Life-history trade-offs and limitations associated with phenotypic adaptation under future ocean warming and elevated salinity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180428.	1.8	19
61	No maternal or direct effects of ocean acidification on egg hatching in the Arctic copepod Calanus glacialis. PLoS ONE, 2018, 13, e0192496.	1.1	19
62	Life-history and thermal tolerance traits display different thermal plasticities and relationships with temperature in the marine polychaete Ophryotrocha labronica La Greca and Bacci (Dorvilleidae). Journal of Experimental Marine Biology and Ecology, 2012, 438, 109-117.	0.7	18
63	Long-term exposure to elevated pCO2 more than warming modifies early-life shell growth in a temperate gastropod. ICES Journal of Marine Science, 2017, 74, 1113-1124.	1.2	18
64	Universal metabolic constraints shape the evolutionary ecology of diving in animals. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200488.	1.2	18
65	Physiological plasticity preserves the metabolic relationship of the intertidal non-calcifying anthozoan-Symbiodinium symbiosis under ocean acidification. Journal of Experimental Marine Biology and Ecology, 2013, 449, 200-206.	0.7	17
66	Physiological responses to hyposmotic stress in the supralittoral amphipod Talitrus saltator (Crustacea: Amphipoda). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2005, 142, 267-275.	0.8	16
67	Metabolic and reproductive plasticity of core and marginal populations of the eurythermic saline water bug Sigara selecta (Hemiptera: Corixidae) in a climate change context. Journal of Insect Physiology, 2017, 98, 59-66.	0.9	16
68	Early life stages of Northern shrimp (Pandalus borealis) are sensitive to fish feed containing the anti-parasitic drug diflubenzuron. Aquatic Toxicology, 2018, 198, 82-91.	1.9	15
69	Within- and trans-generational responses to combined global changes are highly divergent in two congeneric species of marine annelids. Marine Biology, 2020, 167, 1.	0.7	15
70	Synthesis of Thresholds of Ocean Acidification Impacts on Echinoderms. Frontiers in Marine Science, 2021, 8, .	1.2	15
71	Effects of elevated pCO2 on crab survival and exoskeleton composition depend on shell function and species distribution: a comparative analysis of carapace and claw mineralogy across four porcelain crab species from different habitats. ICES Journal of Marine Science, 2017, 74, 1021-1032.	1.2	14
72	Effects of oil and global environmental drivers on two keystone marine invertebrates. Scientific Reports, 2018, 8, 17380.	1.6	14

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73	The importance of interâ€individual variation in predicting species' responses to global change drivers. Ecology and Evolution, 2019, 9, 4327-4339.	0.8	14
74	Tolerant Larvae and Sensitive Juveniles: Integrating Metabolomics and Whole-Organism Responses to Define Life-Stage Specific Sensitivity to Ocean Acidification in the American Lobster. Metabolites, 2021, 11, 584.	1.3	14
75	Substratum-mediated heart rate responses of an invertebrate to predation threat. Animal Behaviour, 2006, 71, 809-813.	0.8	13
76	Ocean acidification alters zooplankton communities and increases topâ€down pressure of a cubozoan predator. Global Change Biology, 2018, 24, e128-e138.	4.2	13
77	Acquiring an evolutionary perspective in marine ecotoxicology to tackle emerging concerns in a rapidly changing ocean. Science of the Total Environment, 2021, 764, 142816.	3.9	13
78	The comparative biology of diving in two genera of European Dytiscidae (Coleoptera). Journal of Evolutionary Biology, 2012, 25, 329-341.	0.8	12
79	Regional variations in early life stages response to a temperature gradient in the northern shrimp Pandalus borealis and vulnerability of the populations to ocean warming. Journal of Experimental Marine Biology and Ecology, 2017, 497, 50-60.	0.7	12
80	Extensive gene rearrangements in the mitogenomes of congeneric annelid species and insights on the evolutionary history of the genus Ophryotrocha. BMC Genomics, 2020, 21, 815.	1.2	12
81	Synthesis of Thresholds of Ocean Acidification Impacts on Decapods. Frontiers in Marine Science, 2021, 8, .	1.2	11
82	Optocardiographic recording of heart rate in Talitrus saltator (Amphipoda: Talitridae). Physiological Entomology, 2003, 28, 344-348.	0.6	10
83	The effects of elevated temperature and <i>P</i>CO2Âon the energetics and haemolymph pH homeostasis of juveniles of the European lobster, <i>Homarus gammarus</i>. Journal of Experimental Biology, 2020, 223, .	0.8	8
84	Good News â€" Bad News: Combined Ocean Change Drivers Decrease Survival but Have No Negative Impact on Nutritional Value and Organoleptic Quality of the Northern Shrimp. Frontiers in Marine Science, 2020, 7, .	1.2	6
85	Density-dependent responses of the brittlestar Amphiura filiformis to moderate hypoxia and consequences for nutrient fluxes. Marine Ecology - Progress Series, 2018, 594, 175-191.	0.9	6
86	Bird is the word â€“ on the importance of ethical and effective scientific communication. Journal of the Marine Biological Association of the United Kingdom, 2015, 95, 863-864.	0.4	5
87	Low pH conditions impair module capacity to regenerate in a calcified colonial invertebrate, the bryozoan Cryptosula pallasiana. Marine Environmental Research, 2017, 125, 110-117.	1.1	5
88	A mesocosm study investigating the effects of hypoxia and population density on respiration and reproductive biology in the brittlestar Amphiura filiformis. Marine Ecology - Progress Series, 2015, 534, 135-147.	0.9	5
89	Modelling ocean acidification effects with life stage-specific responses alters spatiotemporal patterns of catch and revenues of American lobster, Homarus americanus. Scientific Reports, 2021, 11, 23330.	1.6	5
90	Overwintering individuals of the Arctic krill Thysanoessa inermis appear tolerant to short-term exposure to low pH conditions. Polar Biology, 2018, 41, 341-352.	0.5	4

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91	Life-history traits display strong associations to genome size in annelids. Hydrobiologia, 2021, 848, 799-810.	1.0	3
92	Plastic adjustments of biparental care behavior across embryonic development under elevated temperature in a marine ectotherm. Ecology and Evolution, 2021, 11, 11155-11167.	0.8	3
93	Real-life Lernaean Hydras: a practical activity about the effects of oxygen concentration on regenerative capabilities of planarians. Journal of Biological Education, 2020, 54, 98-107.	0.8	2
94	A comparison of life-history traits in calcifying Spirorbinae polychaetes living along natural pH gradients. Marine Ecology - Progress Series, 2018, 589, 141-152.	0.9	2
95	Elevated temperature and carbon dioxide levels alter growth rates and shell composition in the fluted giant clam, Tridacna squamosa. Scientific Reports, 2022, 12, .	1.6	2
96	Metabolic rate thermal plasticity in the marine annelid <i>Ophryotrocha labronica</i> across two successive generations. Journal of the Marine Biological Association of the United Kingdom, 2022, 102, 69-75.	0.4	1
97	What determines a species' geographic range? Thermal biology and geographical range size relationships in European diving beetles. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2007, 146, S209.	0.8	0