# Sinead Collins

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9027433/publications.pdf

Version: 2024-02-01

| 53 | 3,542 | 186265 | 182427 |
|---|---|---|---|
| papers | citations | 28 h-index | 51 g-index |

| 63 | 63 | 63 | 4062 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Phenotypic consequences of 1,000 generations of selection at elevated CO2 in a green alga. Nature, 2004, 431, 566-569. | 27.8 | 337 |
| 2 | Experimental strategies to assess the biological ramifications of multiple drivers of global ocean changeâ€"A review. Global Change Biology, 2018, 24, 2239-2261. | 9.5 | 285 |
| 3 | Adaptation, extinction and global change. Evolutionary Applications, 2008, 1, 3-16. | 3.1 | 258 |
| 4 | How epigenetic mutations can affect genetic evolution: Model and mechanism. BioEssays, 2013, 35, 571-578. | 2.5 | 209 |
| 5 | The future of the northeast <scp>A</scp>tlantic benthic flora in a high <scp>CO</scp><sub>2</sub> world. Ecology and Evolution, 2014, 4, 2787-2798. | 1.9 | 176 |
| 6 | Evolutionary potential of marine phytoplankton under ocean acidification. Evolutionary Applications, 2014, 7, 140-155. | 3.1 | 167 |
| 7 | Phenotypic plasticity and evolutionary demographic responses to climate change: taking theory out to the field. Functional Ecology, 2013, 27, 967-979. | 3.6 | 152 |
| 8 | Plasticity predicts evolution in a marine alga. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141486. | 2.6 | 152 |
| 9 | Epigenetic mutations can both help and hinder adaptive evolution. Molecular Ecology, 2016, 25, 1856-1868. | 3.9 | 144 |
| 10 | Variation in plastic responses of a globally distributed picoplankton species to ocean acidification. Nature Climate Change, 2013, 3, 298-302. | 18.8 | 133 |
| 11 | Growth responses of a green alga to multiple environmental drivers. Nature Climate Change, 2015, 5, 892-897. | 18.8 | 98 |
| 12 | Epigenetic and Genetic Contributions to Adaptation in Chlamydomonas. Molecular Biology and Evolution, 2017, 34, 2285-2306. | 8.9 | 97 |
| 13 | Competition limits adaptation and productivity in a photosynthetic alga at elevated CO <sub>2</sub>. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 247-255. | 2.6 | 81 |
| 14 | Decreased photosynthesis and growth with reduced respiration in the model diatom Phaeodactylum tricornutum grown under elevated <scp>CO</scp><sub>2</sub> over 1800 generations. Global Change Biology, 2017, 23, 127-137. | 9.5 | 73 |
| 15 | FUNCTIONAL GENETIC DIVERGENCE IN HIGH CO<sub>2</sub>ADAPTEDEMILIANIA HUXLEYIPOPULATIONS. Evolution; International Journal of Organic Evolution, 2013, 67, 1892-1900. | 2.3 | 71 |
| 16 | ADAPTATION TO DIFFERENT RATES OF ENVIRONMENTAL CHANGE INCHLAMYDOMONAS. Evolution; International Journal of Organic Evolution, 2009, 63, 2952-2965. | 2.3 | 69 |
| 17 | Evolution of natural algal populations at elevated CO2. Ecology Letters, 2006, 9, 129-135. | 6.4 | 67 |
| 18 | Many Possible Worlds: Expanding the Ecological Scenarios in Experimental Evolution. Evolutionary Biology, 2011, 38, 3-14. | 1.1 | 66 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Environmental stability affects phenotypic evolution in a globally distributed marine picoplankton. ISME Journal, 2016, 10, 75-84. | 9.8 | 66 |
| 20 | Fundamental shift in vitamin B12 eco-physiology of a model alga demonstrated by experimental evolution. ISME Journal, 2015, 9, 1446-1455. | 9.8 | 65 |
| 21 | Changes in C uptake in populations of Chlamydomonas reinhardtii selected at high CO2. Plant, Cell and Environment, 2006, 29, 1812-1819. | 5.7 | 63 |
| 22 | Adaptive Walks Toward a Moving Optimum. Genetics, 2007, 176, 1089-1099. | 2.9 | 63 |
| 23 | Bridging the gap between omics and earth system science to better understand how environmental change impacts marine microbes. Global Change Biology, 2016, 22, 61-75. | 9.5 | 58 |
| 24 | Oxygen content of transmembrane proteins over macroevolutionary time scales. Nature, 2007, 445, 47-52. | 27.8 | 57 |
| 25 | Integrating physiological, ecological and evolutionary change: a Price equation approach. Ecology Letters, 2009, 12, 744-757. | 6.4 | 57 |
| 26 | Evolutionary consequences of multidriver environmental change in an aquatic primary producer. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9930-9935. | 7.1 | 55 |
| 27 | Evolution, Microbes, and Changing Ocean Conditions. Annual Review of Marine Science, 2020, 12, 181-208. | 11.6 | 42 |
| 28 | Company matters: The presence of other genotypes alters traits and intraspecific selection in an Arctic diatom under climate change. Global Change Biology, 2019, 25, 2869-2884. | 9.5 | 34 |
| 29 | Selective constraints on global plankton dispersal. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 34 |
| 30 | Qualityâ€“quantity tradeâ€offs drive functional trait evolution in a model microalgal â€˜climate change winnerâ€™. Ecology Letters, 2020, 23, 780-790. | 6.4 | 32 |
| 31 | Evolution on acid. Nature Geoscience, 2012, 5, 310-311. | 12.9 | 29 |
| 32 | Microbial evolutionary strategies in a dynamic ocean. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5943-5948. | 7.1 | 29 |
| 33 | Mucospheres produced by a mixotrophic protist impact ocean carbon cycling. Nature Communications, 2022, 13, 1301. | 12.8 | 27 |
| 34 | Growth rate evolution in improved environments under Prodigal Son dynamics. Evolutionary Applications, 2016, 9, 1179-1188. | 3.1 | 23 |
| 35 | Surviving Heatwaves: Thermal Experience Predicts Life and Death in a Southern Ocean Diatom. Frontiers in Marine Science, 2021, 8, . | 2.5 | 17 |
| 36 | The need for unrealistic experiments in global change biology. Current Opinion in Microbiology, 2022, 68, 102151. | 5.1 | 16 |

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|---|---|---|---|
| 37 | Mode of resistance to viral lysis affects host growth across multiple environments in the marine picoeukaryote Ostreococcus tauri. Environmental Microbiology, 2016, 18, 4628-4639. | 3.8 | 14 |
| 38 | The evolution of trait correlations constrains phenotypic adaptation to high CO<sub>2</sub>in a eukaryotic alga. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210940. | 2.6 | 14 |
| 39 | Thermal trait variation may buffer Southern Ocean phytoplankton from anthropogenic warming. Global Change Biology, 2022, 28, 5755-5767. | 9.5 | 13 |
| 40 | Virus Resistance Is Not Costly in a Marine Alga Evolving under Multiple Environmental Stressors. Viruses, 2017, 9, 39. | 3.3 | 12 |
| 41 | Rewinding the tape: selection of algae adapted to high CO2 at current and pleistocene levels of CO2. Evolution; International Journal of Organic Evolution, 2006, 60, 1392-401. | 2.3 | 10 |
| 42 | Reduced growth with increased quotas of particulate organic and inorganic carbon in the coccolithophore <i>Emiliania huxleyi</i> under future ocean climate change conditions. Biogeosciences, 2020, 17, 6357-6375. | 3.3 | 9 |
| 43 | Multivariate trait analysis reveals diatom plasticity constrained to a reduced set of biological axes. ISME Communications, 2021, 1, . | 4.2 | 9 |
| 44 | Growth strategies of a model picoplankter depend on social milieu and p CO <sub>2</sub>. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211154. | 2.6 | 8 |
| 45 | A High-Throughput Assay for Quantifying Phenotypic Traits of Microalgae. Frontiers in Microbiology, 2021, 12, 706235. | 3.5 | 8 |
| 46 | Biodiversity of marine microbes is safeguarded by phenotypic heterogeneity in ecological traits. PLoS ONE, 2021, 16, e0254799. | 2.5 | 7 |
| 47 | Rapid evolution allows coexistence of highly divergent lineages within the same niche. Ecology Letters, 2022, 25, 1839-1853. | 6.4 | 7 |
| 48 | NEW MODEL SYSTEMS FOR EXPERIMENTAL EVOLUTION. Evolution; International Journal of Organic Evolution, 2013, 67, 1847-1848. | 2.3 | 6 |
| 49 | Predictability of thermal fluctuations influences functional traits of a cosmopolitan marine diatom. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20212581. | 2.6 | 5 |
| 50 | Assessing the Influence of Adjacent Gene Orientation on the Evolution of Gene Upstream Regions in Arabidopsis thaliana. Genetics, 2010, 185, 695-701. | 2.9 | 4 |
| 51 | The role of changes in environmental quality in multitrait plastic responses to environmental and social change in the model microalga Chlamydomonas reinhardtii. Ecology and Evolution, 2021, 11, 1888-1901. | 1.9 | 1 |
| 52 | The Population Genetics and Evolutionary Potential of Diatoms. , 2022, , 29-57. | | 1 |
| 53 | Fold or hold: experimental evolution in vitro. Journal of Evolutionary Biology, 2013, 26, 2123-2134. | 1.7 | 0 |