Gesa A Weyhenmeyer

List of Publications by Year
in descending order

132	12,421	34105 52	26613 107
papers	citations	h-index	g-index

138	138	138	11358
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lakes and reservoirs as regulators of carbon cycling and climate. Limnology and Oceanography, 2009, 54, 2298-2314.	3.1	1,977
2	Lakes as sentinels of climate change. Limnology and Oceanography, 2009, 54, 2283-2297.	3.1	1,314
3	Rapid and highly variable warming of lake surface waters around the globe. Geophysical Research Letters, 2015, 42, 10,773.	4.0	767
4	Ecology under lake ice. Ecology Letters, 2017, 20, 98-111.	6.4	320
5	Widespread loss of lake ice around the Northern Hemisphere in a warming world. Nature Climate Change, 2019, 9, 227-231.	18.8	301
6	Controls of dissolved organic matter quality: evidence from a largeâ€scale boreal lake survey. Global Change Biology, 2014, 20, 1101-1114.	9.5	287
7	Widespread deoxygenation of temperate lakes. Nature, 2021, 594, 66-70.	27.8	267
8	Thirtyâ€five years of synchrony in the organic matter concentrations of Swedish rivers explained by variation in flow and sulphate. Global Change Biology, 2008, 14, 1191-1198.	9.5	261
9	Current Browning of Surface Waters Will Be Further Promoted by Wetter Climate. Environmental Science and Technology Letters, 2016, 3, 430-435.	8.7	257
10	Inner filter correction of dissolved organic matter fluorescence. Limnology and Oceanography: Methods, 2013, 11, 616-630.	2.0	244
11	Changes of the plankton spring outburst related to the North Atlantic Oscillation. Limnology and Oceanography, 1999, 44, 1788-1792.	3.1	231
12	Global changeâ€driven effects on dissolved organic matter composition: Implications for food webs of northern lakes. Global Change Biology, 2018, 24, 3692-3714.	9.5	229
13	Largeâ€scale climatic signatures in lakes across Europe: a metaâ€analysis. Global Change Biology, 2007, 13, 1314-1326.	9.5	209
14	Extreme events, trends, and variability in Northern Hemisphere lake-ice phenology (1855â€“2005). Climatic Change, 2012, 112, 299-323.	3.6	196
15	Significant fraction of CO2 emissions from boreal lakes derived from hydrologic inorganic carbonÂinputs. Nature Geoscience, 2015, 8, 933-936.	12.9	171
16	State of the Climate in 2017. Bulletin of the American Meteorological Society, 2018, 99, Si-S310.	3.3	160
17	A global database of lake surface temperatures collected by in situ and satellite methods from 1985â€“2009. Scientific Data, 2015, 2, 150008.	5.3	153
18	Scientistsâ€™ Warning to Humanity: Rapid degradation of the worldâ€™s large lakes. Journal of Great Lakes Research, 2020, 46, 686-702.	1.9	140

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19	Effects of weatherâ€related episodic events in lakes: an analysis based on highâ€frequency data. Freshwater Biology, 2012, 57, 589-601.	2.4	135
20	Browning of Boreal Freshwaters Coupled to Carbon-Iron Interactions along the Aquatic Continuum. PLoS ONE, 2014, 9, e88104.	2.5	134
21	Nonlinear temperature response of lake ice breakup. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	133
22	Large geographical differences in the sensitivity of ice-covered lakes and rivers in the Northern Hemisphere to temperature changes. Global Change Biology, 2011, 17, 268-275.	9.5	130
23	Evaluating pharmaceuticals and caffeine as indicators of fecal contamination in drinking water sources of the Greater Montreal region. Chemosphere, 2012, 88, 131-139.	8.2	130
24	Sunlightâ€induced carbon dioxide emissions from inland waters. Global Biogeochemical Cycles, 2014, 28, 696-711.	4.9	127
25	Nonlinear response of dissolved organic carbon concentrations in boreal lakes to increasing temperatures. Limnology and Oceanography, 2009, 54, 2513-2519.	3.1	123
26	Effects of Changes in Arctic Lake and River Ice. Ambio, 2011, 40, 63-74.	5.5	123
27	Selective decay of terrestrial organic carbon during transport from land to sea. Global Change Biology, 2012, 18, 349-355.	9.5	120
28	Phenological shifts in lake stratification under climate change. Nature Communications, 2021, 12, 2318.	12.8	118
29	Seasonal variations in the occurrence and fate of basic and neutral pharmaceuticals in a Swedish riverâ€“lake system. Chemosphere, 2010, 80, 301-309.	8.2	116
30	Past and Future Changes in Arctic Lake and River Ice. Ambio, 2011, 40, 53-62.	5.5	105
31	Automatic High Frequency Monitoring for Improved Lake and Reservoir Management. Environmental Science & Technology, 2016, 50, 10780-10794.	10.0	104
32	The response of freshwater ecosystems to climate variability associated with the North Atlantic Oscillation. Geophysical Monograph Series, 2003, , 263-279.	0.1	102
33	Sensitivity of freshwaters to browning in response to future climate change. Climatic Change, 2016, 134, 225-239.	3.6	95
34	Warmer Winters: Are Planktonic Algal Populations in Sweden's Largest Lakes Affected?. Ambio, 2001, 30, 565-571.	5.5	93
35	Diel Surface Temperature Range Scales with Lake Size. PLoS ONE, 2016, 11, e0152466.	2.5	89
36	Climate change drives widespread shifts in lake thermal habitat. Nature Climate Change, 2021, 11, 521-529.	18.8	87

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37	Widespread diminishing anthropogenic effects on calcium in freshwaters. Scientific Reports, 2019, 9, 10450.	3.3	84
38	Consequences of lake and river ice loss on cultural ecosystem services. Limnology and Oceanography Letters, 2019, 4, 119-131.	3.9	81
39	Climate Change and the Future of Freshwater Biodiversity in Europe: A Primer for Policy-Makers. Freshwater Reviews: A Journal of the Freshwater Biological Association, 2009, 2, 103-130.	1.0	80
40	Winter accumulation of acidic pharmaceuticals in a Swedish river. Environmental Science and Pollution Research, 2010, 17, 908-916.	5.3	79
41	Widespread Increases in Iron Concentration in European and North American Freshwaters. Global Biogeochemical Cycles, 2017, 31, 1488-1500.	4.9	79
42	Substantial increase in minimum lake surface temperatures under climate change. Climatic Change, 2019, 155, 81-94.	3.6	66
43	Temperature as a driver for the expansion of the microalga Gonyostomum semen in Swedish lakes. Harmful Algae, 2012, 18, 65-73.	4.8	65
44	Warmer and browner waters decrease fish biomass production. Global Change Biology, 2019, 25, 1395-1408.	9.5	64
45	Loss of Ice Cover, Shifting Phenology, and More Extreme Events in Northern Hemisphere Lakes. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006348.	3.0	64
46	Seasonality of chlorophyll and nutrients in Lake Erken â€“ effects of weather conditions. Hydrobiologia, 2003, 506-509, 75-81.	2.0	62
47	High resolution measurements of sediment resuspension above an accumulation bottom in a stratified lake. Hydrobiologia, 1994, 284, 43-57.	2.0	61
48	Nitrateâ€depleted conditions on the increase in shallow northern European lakes. Limnology and Oceanography, 2007, 52, 1346-1353.	3.1	61
49	Carbon Dioxide in Boreal Surface Waters: A Comparison of Lakes and Streams. Ecosystems, 2012, 15, 1295-1307.	3.4	61
50	Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128.	3.3	61
51	Intraâ€annual variability of organic carbon concentrations in running waters: Drivers along a climatic gradient. Global Biogeochemical Cycles, 2014, 28, 451-464.	4.9	59
52	<scp>CO</scp>₂ evasion from boreal lakes: Revised estimate, drivers of spatial variability, and future projections. Global Change Biology, 2018, 24, 711-728.	9.5	56
53	Deeper waters are changing less consistently than surface waters in a global analysis of 102 lakes. Scientific Reports, 2020, 10, 20514.	3.3	56
54	Increasingly ice-free winters and their effects on water quality in Swedenâ€™s largest lakes. Hydrobiologia, 2008, 599, 111-118.	2.0	54

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55	A validated model for daily variations in the flux, origin, and distribution of settling particles within lakes. Limnology and Oceanography, 1997, 42, 1517-1529.	3.1	53
56	Paired O₂â€“CO₂ measurements provide emergent insights into aquatic ecosystem function. Limnology and Oceanography Letters, 2020, 5, 287-294.	3.9	51
57	Carbon dioxide and methane emissions of Swedish lowâ€order streamsâ€”a national estimate and lessons learnt from more than a decade of observations. Limnology and Oceanography Letters, 2018, 3, 156-167.	3.9	49
58	Current water quality guidelines across North America and Europe do not protect lakes from salinization. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	49
59	Synchrony in relationships between the North Atlantic Oscillation and water chemistry among Swedenâ€™s largest lakes. Limnology and Oceanography, 2004, 49, 1191-1201.	3.1	47
60	The unique methodological challenges of winter limnology. Limnology and Oceanography: Methods, 2019, 17, 42-57.	2.0	47
61	Increasing Dissolved Organic Carbon Redefines the Extent of Surface Water Acidification and Helps Resolve a Classic Controversy. BioScience, 2011, 61, 614-618.	4.9	46
62	Shifts in phytoplankton species richness and biomass along a latitudinal gradient â€“ consequences for relationships between biodiversity and ecosystem functioning. Freshwater Biology, 2013, 58, 612-623.	2.4	45
63	Increasing maximum lake surface temperature under climate change. Climatic Change, 2021, 165, 1.	3.6	43
64	Interactions between the atmosphere, cryosphere, and ecosystems at northern high latitudes. Atmospheric Chemistry and Physics, 2019, 19, 2015-2061.	4.9	42
65	A simple method to quantify sources of settling particles in lakes: Resuspension versus new sedimentation of material from planktonic production. Marine and Freshwater Research, 1995, 46, 223.	1.3	42
66	Arctic Freshwater Ice and Its Climatic Role. Ambio, 2011, 40, 46-52.	5.5	40
67	Water chemical changes along a latitudinal gradient in relation to climate and atmospheric deposition. Climatic Change, 2008, 88, 199-208.	3.6	38
68	Impact of TiO2 nanoparticles on freshwater bacteria from three Swedish lakes. Science of the Total Environment, 2015, 535, 85-93.	8.0	37
69	Forestry Influence by Stump Harvest and Site Preparation on Methylmercury, Total Mercury and Other Stream Water Chemistry Parameters Across a Boreal Landscape. Ecosystems, 2012, 15, 1308-1320.	3.4	36
70	Methane oxidation at the waterâ€ice interface of an iceâ€covered lake. Limnology and Oceanography, 2016, 61, S78.	3.1	35
71	Temporal control on concentration, character, and export of dissolved organic carbon in two hemiboreal headwater streams draining contrasting catchments. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 832-846.	3.0	34
72	No longâ€term trends in pCO₂ despite increasing organic carbon concentrations in boreal lakes, streams, and rivers. Global Biogeochemical Cycles, 2017, 31, 985-995.	4.9	34

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73	The influence of stratification on the amount and distribution of different settling particles in Lake Erken. Canadian Journal of Fisheries and Aquatic Sciences, 1996, 53, 1254-1262.	1.4	33
74	The Impact of the Changing Climate on the Thermal Characteristics of Lakes. , 2009, , 85-101.		32
75	A New Thermal Categorization of Iceâ€Covered Lakes. Geophysical Research Letters, 2021, 48, e2020GL091374.	4.0	31
76	Ten simple rules for collaboratively writing a multi-authored paper. PLoS Computational Biology, 2018, 14, e1006508.	3.2	30
77	Adapting regional eutrophication targets for surface watersâ€"influence of the EU Water Framework Directive, national policy and climate change. Environmental Science and Policy, 2007, 10, 734-742.	4.9	29
78	Water renewal along the aquatic continuum offsets cumulative retention by lakes: implications for the character of organic carbon in boreal lakes. Aquatic Sciences, 2013, 75, 535-545.	1.5	28
79	Constraints on methane oxidation in iceâ€covered boreal lakes. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1924-1933.	3.0	28
80	Regional Variability and Drivers of Below Ice CO2 in Boreal and Subarctic Lakes. Ecosystems, 2016, 19, 461-476.	3.4	28
81	Effects of stratification depth and dissolved organic matter on brackish bacterioplankton communities. Marine Ecology - Progress Series, 2012, 453, 37-48.	1.9	28
82	Lake Ice Phenology. , 2010, , 51-61.		27
83	Global increase in methane production under future warming of lake bottom waters. Global Change Biology, 2022, 28, 5427-5440.	9.5	27
84	The Impact of Variations in the Climate on Seasonal Dynamics of Phytoplankton. , 2010, , 253-274.		26
85	Abrupt changes in air temperature and precipitation: Do they matter for water chemistry?. Global Biogeochemical Cycles, 2008, 22, .	4.9	24
86	Colored organic matter increases CO₂ in mesoâ€eutrophic lake water through altered light climate and acidity. Limnology and Oceanography, 2019, 64, 744-756.	3.1	23
87	Regional and Supra-Regional Coherence in Limnological Variables. , 2010, , 311-337.		22
88	Hourly, daily, and seasonal variability in the absorption spectra of chromophoric dissolved organic matter in a eutrophic, humic lake. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1985-1998.	3.0	21
89	Citizen science shows systematic changes in the temperature difference between air and inland waters with global warming. Scientific Reports, 2017, 7, 43890.	3.3	21
90	Increased winter drownings in ice-covered regions with warmer winters. PLoS ONE, 2020, 15, e0241222.	2.5	21

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91	Lake salinization drives consistent losses of zooplankton abundance and diversity across coordinated mesocosm experiments. Limnology and Oceanography Letters, 2023, 8, 19-29.	3.9	21
92	Nitrogen deposition induced changes in DOCâ€ƒ:â€ƒNO₃â€N ratios determine the efficiency of nitrate removal from freshwaters. Global Change Biology, 2010, 16, 2358-2365.	9.5	20
93	The pattern of particle flux variability in Swedish and Swiss lakes. Science of the Total Environment, 2001, 266, 69-78.	8.0	19
94	The role of spatial scale and area in determining richness-altitude gradients in Swedish lake phytoplankton communities. Oikos, 2006, 115, 433-442.	2.7	19
95	Neglected sources of pharmaceuticals in river waterâ€"footprints of a Reggae festival. Journal of Environmental Monitoring, 2012, 14, 596-603.	2.1	19
96	An automated method to monitor lake ice phenology. Limnology and Oceanography: Methods, 2011, 9, 74-83.	2.0	18
97	Environmental conditions for phytoplankton influenced carbon dynamics in boreal lakes. Aquatic Sciences, 2019, 81, 1.	1.5	18
98	Natural Variability in Lake pH on Seasonal, Interannual and Decadal Time Scales: Implications for Assessment of Human Impact. Environmental Science & Technology, 2008, 42, 5594-5599.	10.0	16
99	Do warmer winters change variability patterns of physical and chemical lake conditions in Sweden?. Aquatic Ecology, 2009, 43, 653-659.	1.5	16
100	Phytoplankton gross primary production increases along cascading impoundments in a temperate, low-discharge river: Insights from high frequency water quality monitoring. Scientific Reports, 2019, 9, 6701.	3.3	16
101	Mechanistic model identifies increasing light availability due to sea ice reductions as cause for increasing macroalgae cover in the Arctic. Limnology and Oceanography, 2019, 64, 330-341.	3.1	14
102	Winter inverse lake stratification under historic and future climate change. Limnology and Oceanography Letters, 2022, 7, 302-311.	3.9	14
103	Rates of change in physical and chemical lake variables â€“ are they comparable between large and small lakes?. Hydrobiologia, 2008, 599, 105-110.	2.0	13
104	Increasing algal biomass in Lake VÃnern despite decreasing phosphorus concentrations: A lake-specific phenomenon?. Aquatic Ecosystem Health and Management, 2014, 17, 341-348.	0.6	13
105	A lake classification concept for a more accurate global estimate of the dissolved inorganic carbon export from terrestrial ecosystems to inland waters. Die Naturwissenschaften, 2018, 105, 25.	1.6	13
106	Snapshot Surveys for Lake Monitoring, More Than a Shot in the Dark. Frontiers in Ecology and Evolution, 2018, 6, .	2.2	13
107	The Impact of Climate Change on Lakes in Northern Europe. , 2010, , 339-358.		13
108	Systematic differences in the trend towards earlier ice-out on Swedish lakes along a latitudinal temperature gradient. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2005, 29, 257-260.	0.1	12

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109	Summary of a workshop on extreme weather events in a warming world organized by the Royal Swedish Academy of Sciences. Tellus, Series B: Chemical and Physical Meteorology, 2022, 72, 1794236.	1.6	11
110	Increasing dissimilarity of water chemical compositions in a warmer climate. Global Biogeochemical Cycles, 2009, 23, .	4.9	10
111	Large differences between carbon and nutrient loss rates along the land to ocean aquatic continuumâ€"implications for energy:nutrient ratios at downstream sites. Limnology and Oceanography, 2017, 62, S183.	3.1	10
112	Nitrogen and carbon interactions between boreal soils and lakes. Global Biogeochemical Cycles, 2010, 24, .	4.9	9
113	Modeling nonlinear responses of DOC transport in boreal catchments in Sweden. Water Resources Research, 2016, 52, 4970-4989.	4.2	9
114	Diverse drivers of long-term pCO₂ increases across thirteen boreal lakes and streams. Inland Waters, 2020, 10, 360-372.	2.2	9
115	Groundwater Carbon Within a Boreal Catchment: Spatiotemporal Variability of a Hidden Aquatic Carbon Pool. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005244.	3.0	9
116	Long-term ice phenology records spanning up to 578 years for 78 lakes around the Northern Hemisphere. Scientific Data, 2022, 9, .	5.3	9
117	Impacts of Climate on the Flux of Dissolved Organic Carbon from Catchments. , 2009, , 199-220.		8
118	Global data set of long-term summertime vertical temperature profiles in 153 lakes. Scientific Data, 2021, 8, 200.	5.3	7
119	Silicon load and the development of diatoms in three river-lake systems in countries surrounding the Baltic Sea. Hydrobiologia, 2008, 599, 67-76.	2.0	6
120	Long-term changes in physical and chemical conditions of nutrient-poor lakes along a latitudinal gradient: is there a coherent phytoplankton community response?. Aquatic Sciences, 2012, 74, 77-85.	1.5	6
121	A simplified approach to detect a significant carbon dioxide reduction by phytoplankton in lakes and rivers on a regional and global scale. Die Naturwissenschaften, 2020, 107, 29.	1.6	6
122	The lake as an iron sink - new insights on the role of iron speciation. Chemical Geology, 2021, 584, 120529.	3.3	6
123	Response of phytoplankton in European lakes to a change in the North Atlantic Oscillation. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2002, 28, 1436-1439.	0.1	5
124	Growing season variability of nitrate along a trophic gradient â€“ contrasting patterns between lakes and streams. Aquatic Sciences, 2009, 71, 25-33.	1.5	5
125	Quantification of resuspended particles in sedimentation traps. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 1997, 26, 271-276.	0.1	4
126	Disruptions and re-establishment of the calcium-bicarbonate equilibrium in freshwaters. Science of the Total Environment, 2020, 743, 140626.	8.0	4

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127	Increasingly ice-free winters and their effects on water quality in Swedenâ€™s largest lakes. , 2007, , 111-118.		2
128	Sediment Records Shed Light on Drivers of Decadal Iron Concentration Increase in a Boreal Lake. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	2
129	Environmental Impactsâ€"Freshwater Biogeochemistry. Regional Climate Studies, 2015, , 307-336.	1.2	1
130	Hypolimnetic lake sediments in frequent motion. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 2000, 27, 2317-2322.	0.1	0
131	Silicon load and the development of diatoms in three river-lake systems in countries surrounding the Baltic Sea. , 2007, , 67-76.		0
132	Rates of change in physical and chemical lake variables â€" are they comparable between large and small lakes?. , 2007, , 105-110.		0