

# Gesa A Weyhenmeyer

## List of Publications by Year in descending order

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Version: 2024-02-01

132  
papers

12,421  
citations

34016

52  
h-index

26548

107  
g-index

138  
all docs

138  
docs citations

138  
times ranked

11358  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lakes and reservoirs as regulators of carbon cycling and climate. <i>Limnology and Oceanography</i> , 2009, 54, 2298-2314.	1.6	1,977
2	Lakes as sentinels of climate change. <i>Limnology and Oceanography</i> , 2009, 54, 2283-2297.	1.6	1,314
3	Rapid and highly variable warming of lake surface waters around the globe. <i>Geophysical Research Letters</i> , 2015, 42, 10,773.	1.5	767
4	Ecology under lake ice. <i>Ecology Letters</i> , 2017, 20, 98-111.	3.0	320
5	Widespread loss of lake ice around the Northern Hemisphere in a warming world. <i>Nature Climate Change</i> , 2019, 9, 227-231.	8.1	301
6	Controls of dissolved organic matter quality: evidence from a large-scale boreal lake survey. <i>Global Change Biology</i> , 2014, 20, 1101-1114.	4.2	287
7	Widespread deoxygenation of temperate lakes. <i>Nature</i> , 2021, 594, 66-70.	13.7	267
8	Thirty-five years of synchrony in the organic matter concentrations of Swedish rivers explained by variation in flow and sulphate. <i>Global Change Biology</i> , 2008, 14, 1191-1198.	4.2	261
9	Current Browning of Surface Waters Will Be Further Promoted by Wetter Climate. <i>Environmental Science and Technology Letters</i> , 2016, 3, 430-435.	3.9	257
10	Inner filter correction of dissolved organic matter fluorescence. <i>Limnology and Oceanography: Methods</i> , 2013, 11, 616-630.	1.0	244
11	Changes of the plankton spring outburst related to the North Atlantic Oscillation. <i>Limnology and Oceanography</i> , 1999, 44, 1788-1792.	1.6	231
12	Global change-driven effects on dissolved organic matter composition: Implications for food webs of northern lakes. <i>Global Change Biology</i> , 2018, 24, 3692-3714.	4.2	229
13	Large-scale climatic signatures in lakes across Europe: a meta-analysis. <i>Global Change Biology</i> , 2007, 13, 1314-1326.	4.2	209
14	Extreme events, trends, and variability in Northern Hemisphere lake-ice phenology (1855-2005). <i>Climatic Change</i> , 2012, 112, 299-323.	1.7	196
15	Significant fraction of CO <sub>2</sub> emissions from boreal lakes derived from hydrologic inorganic carbon inputs. <i>Nature Geoscience</i> , 2015, 8, 933-936.	5.4	171
16	State of the Climate in 2017. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, Si-S310.	1.7	160
17	A global database of lake surface temperatures collected by in situ and satellite methods from 1985-2009. <i>Scientific Data</i> , 2015, 2, 150008.	2.4	153
18	Scientists' Warning to Humanity: Rapid degradation of the world's large lakes. <i>Journal of Great Lakes Research</i> , 2020, 46, 686-702.	0.8	140

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19	Effects of weather-related episodic events in lakes: an analysis based on high-frequency data. <i>Freshwater Biology</i> , 2012, 57, 589-601.	1.2	135
20	Browning of Boreal Freshwaters Coupled to Carbon-Iron Interactions along the Aquatic Continuum. <i>PLoS ONE</i> , 2014, 9, e88104.	1.1	134
21	Nonlinear temperature response of lake ice breakup. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	133
22	Large geographical differences in the sensitivity of ice-covered lakes and rivers in the Northern Hemisphere to temperature changes. <i>Global Change Biology</i> , 2011, 17, 268-275.	4.2	130
23	Evaluating pharmaceuticals and caffeine as indicators of fecal contamination in drinking water sources of the Greater Montreal region. <i>Chemosphere</i> , 2012, 88, 131-139.	4.2	130
24	Sunlight-induced carbon dioxide emissions from inland waters. <i>Global Biogeochemical Cycles</i> , 2014, 28, 696-711.	1.9	127
25	Nonlinear response of dissolved organic carbon concentrations in boreal lakes to increasing temperatures. <i>Limnology and Oceanography</i> , 2009, 54, 2513-2519.	1.6	123
26	Effects of Changes in Arctic Lake and River Ice. <i>Ambio</i> , 2011, 40, 63-74.	2.8	123
27	Selective decay of terrestrial organic carbon during transport from land to sea. <i>Global Change Biology</i> , 2012, 18, 349-355.	4.2	120
28	Phenological shifts in lake stratification under climate change. <i>Nature Communications</i> , 2021, 12, 2318.	5.8	118
29	Seasonal variations in the occurrence and fate of basic and neutral pharmaceuticals in a Swedish river-lake system. <i>Chemosphere</i> , 2010, 80, 301-309.	4.2	116
30	Past and Future Changes in Arctic Lake and River Ice. <i>Ambio</i> , 2011, 40, 53-62.	2.8	105
31	Automatic High Frequency Monitoring for Improved Lake and Reservoir Management. <i>Environmental Science &amp; Technology</i> , 2016, 50, 10780-10794.	4.6	104
32	The response of freshwater ecosystems to climate variability associated with the North Atlantic Oscillation. <i>Geophysical Monograph Series</i> , 2003, , 263-279.	0.1	102
33	Sensitivity of freshwaters to browning in response to future climate change. <i>Climatic Change</i> , 2016, 134, 225-239.	1.7	95
34	Warmer Winters: Are Planktonic Algal Populations in Sweden's Largest Lakes Affected?. <i>Ambio</i> , 2001, 30, 565-571.	2.8	93
35	Diel Surface Temperature Range Scales with Lake Size. <i>PLoS ONE</i> , 2016, 11, e0152466.	1.1	89
36	Climate change drives widespread shifts in lake thermal habitat. <i>Nature Climate Change</i> , 2021, 11, 521-529.	8.1	87

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37	Widespread diminishing anthropogenic effects on calcium in freshwaters. <i>Scientific Reports</i> , 2019, 9, 10450.	1.6	84
38	Consequences of lake and river ice loss on cultural ecosystem services. <i>Limnology and Oceanography Letters</i> , 2019, 4, 119-131.	1.6	81
39	Climate Change and the Future of Freshwater Biodiversity in Europe: A Primer for Policy-Makers. <i>Freshwater Reviews: A Journal of the Freshwater Biological Association</i> , 2009, 2, 103-130.	1.0	80
40	Winter accumulation of acidic pharmaceuticals in a Swedish river. <i>Environmental Science and Pollution Research</i> , 2010, 17, 908-916.	2.7	79
41	Widespread Increases in Iron Concentration in European and North American Freshwaters. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1488-1500.	1.9	79
42	Substantial increase in minimum lake surface temperatures under climate change. <i>Climatic Change</i> , 2019, 155, 81-94.	1.7	66
43	Temperature as a driver for the expansion of the microalga <i>Gonyostomum semen</i> in Swedish lakes. <i>Harmful Algae</i> , 2012, 18, 65-73.	2.2	65
44	Warmer and browner waters decrease fish biomass production. <i>Global Change Biology</i> , 2019, 25, 1395-1408.	4.2	64
45	Loss of Ice Cover, Shifting Phenology, and More Extreme Events in Northern Hemisphere Lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2021JG006348.	1.3	64
46	Seasonality of chlorophyll and nutrients in Lake Erken – effects of weather conditions. <i>Hydrobiologia</i> , 2003, 506-509, 75-81.	1.0	62
47	High resolution measurements of sediment resuspension above an accumulation bottom in a stratified lake. <i>Hydrobiologia</i> , 1994, 284, 43-57.	1.0	61
48	Nitrate-depleted conditions on the increase in shallow northern European lakes. <i>Limnology and Oceanography</i> , 2007, 52, 1346-1353.	1.6	61
49	Carbon Dioxide in Boreal Surface Waters: A Comparison of Lakes and Streams. <i>Ecosystems</i> , 2012, 15, 1295-1307.	1.6	61
50	Global Climate. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, S9-S128.	1.7	61
51	Intra-annual variability of organic carbon concentrations in running waters: Drivers along a climatic gradient. <i>Global Biogeochemical Cycles</i> , 2014, 28, 451-464.	1.9	59
52	CO <sub>2</sub> evasion from boreal lakes: Revised estimate, drivers of spatial variability, and future projections. <i>Global Change Biology</i> , 2018, 24, 711-728.	4.2	56
53	Deeper waters are changing less consistently than surface waters in a global analysis of 102 lakes. <i>Scientific Reports</i> , 2020, 10, 20514.	1.6	56
54	Increasingly ice-free winters and their effects on water quality in Sweden's largest lakes. <i>Hydrobiologia</i> , 2008, 599, 111-118.	1.0	54

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55	A validated model for daily variations in the flux, origin, and distribution of settling particles within lakes. <i>Limnology and Oceanography</i> , 1997, 42, 1517-1529.	1.6	53
56	Paired O <sub>2</sub> and CO <sub>2</sub> measurements provide emergent insights into aquatic ecosystem function. <i>Limnology and Oceanography Letters</i> , 2020, 5, 287-294.	1.6	51
57	Carbon dioxide and methane emissions of Swedish low-order streams: a national estimate and lessons learnt from more than a decade of observations. <i>Limnology and Oceanography Letters</i> , 2018, 3, 156-167.	1.6	49
58	Current water quality guidelines across North America and Europe do not protect lakes from salinization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	49
59	Synchrony in relationships between the North Atlantic Oscillation and water chemistry among Sweden's largest lakes. <i>Limnology and Oceanography</i> , 2004, 49, 1191-1201.	1.6	47
60	The unique methodological challenges of winter limnology. <i>Limnology and Oceanography: Methods</i> , 2019, 17, 42-57.	1.0	47
61	Increasing Dissolved Organic Carbon Redefines the Extent of Surface Water Acidification and Helps Resolve a Classic Controversy. <i>BioScience</i> , 2011, 61, 614-618.	2.2	46
62	Shifts in phytoplankton species richness and biomass along a latitudinal gradient – consequences for relationships between biodiversity and ecosystem functioning. <i>Freshwater Biology</i> , 2013, 58, 612-623.	1.2	45
63	Increasing maximum lake surface temperature under climate change. <i>Climatic Change</i> , 2021, 165, 1.	1.7	43
64	Interactions between the atmosphere, cryosphere, and ecosystems at northern high latitudes. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2015-2061.	1.9	42
65	A simple method to quantify sources of settling particles in lakes: Resuspension versus new sedimentation of material from planktonic production. <i>Marine and Freshwater Research</i> , 1995, 46, 223.	0.7	42
66	Arctic Freshwater Ice and Its Climatic Role. <i>Ambio</i> , 2011, 40, 46-52.	2.8	40
67	Water chemical changes along a latitudinal gradient in relation to climate and atmospheric deposition. <i>Climatic Change</i> , 2008, 88, 199-208.	1.7	38
68	Impact of TiO <sub>2</sub> nanoparticles on freshwater bacteria from three Swedish lakes. <i>Science of the Total Environment</i> , 2015, 535, 85-93.	3.9	37
69	Forestry Influence by Stump Harvest and Site Preparation on Methylmercury, Total Mercury and Other Stream Water Chemistry Parameters Across a Boreal Landscape. <i>Ecosystems</i> , 2012, 15, 1308-1320.	1.6	36
70	Methane oxidation at the water-ice interface of an ice-covered lake. <i>Limnology and Oceanography</i> , 2016, 61, S78.	1.6	35
71	Temporal control on concentration, character, and export of dissolved organic carbon in two hemiboreal headwater streams draining contrasting catchments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 832-846.	1.3	34
72	No long-term trends in CO <sub>2</sub> despite increasing organic carbon concentrations in boreal lakes, streams, and rivers. <i>Global Biogeochemical Cycles</i> , 2017, 31, 985-995.	1.9	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.	0.7	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.	1.5	31
76	Ten simple rules for collaboratively writing a multi-authored paper. PLoS Computational Biology, 2018, 14, e1006508.	1.5	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.	2.4	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.	0.6	28
79	Constraints on methane oxidation in iceâ€covered boreal lakes. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1924-1933.	1.3	28
80	Regional Variability and Drivers of Below Ice CO <sub>2</sub> in Boreal and Subarctic Lakes. Ecosystems, 2016, 19, 461-476.	1.6	28
81	Effects of stratification depth and dissolved organic matter on brackish bacterioplankton communities. Marine Ecology - Progress Series, 2012, 453, 37-48.	0.9	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.	4.2	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, .	1.9	24
86	Colored organic matter increases CO <sub>2</sub> in mesoâ€eutrophic lake water through altered light climate and acidity. Limnology and Oceanography, 2019, 64, 744-756.	1.6	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.	1.3	21
89	Citizen science shows systematic changes in the temperature difference between air and inland waters with global warming. Scientific Reports, 2017, 7, 43890.	1.6	21
90	Increased winter drownings in ice-covered regions with warmer winters. PLoS ONE, 2020, 15, e0241222.	1.1	21

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91	Lake salinization drives consistent losses of zooplankton abundance and diversity across coordinated mesocosm experiments. <i>Limnology and Oceanography Letters</i> , 2023, 8, 19-29.	1.6	21
92	Nitrogen deposition induced changes in DOC:â€f:â€fNO <sub>3</sub> ratios determine the efficiency of nitrate removal from freshwaters. <i>Global Change Biology</i> , 2010, 16, 2358-2365.	4.2	20
93	The pattern of particle flux variability in Swedish and Swiss lakes. <i>Science of the Total Environment</i> , 2001, 266, 69-78.	3.9	19
94	The role of spatial scale and area in determining richness-altitude gradients in Swedish lake phytoplankton communities. <i>Oikos</i> , 2006, 115, 433-442.	1.2	19
95	Neglected sources of pharmaceuticals in river waterâ€™ footprints of a Reggae festival. <i>Journal of Environmental Monitoring</i> , 2012, 14, 596-603.	2.1	19
96	An automated method to monitor lake ice phenology. <i>Limnology and Oceanography: Methods</i> , 2011, 9, 74-83.	1.0	18
97	Environmental conditions for phytoplankton influenced carbon dynamics in boreal lakes. <i>Aquatic Sciences</i> , 2019, 81, 1.	0.6	18
98	Natural Variability in Lake pH on Seasonal, Interannual and Decadal Time Scales: Implications for Assessment of Human Impact. <i>Environmental Science &amp; Technology</i> , 2008, 42, 5594-5599.	4.6	16
99	Do warmer winters change variability patterns of physical and chemical lake conditions in Sweden?. <i>Aquatic Ecology</i> , 2009, 43, 653-659.	0.7	16
100	Phytoplankton gross primary production increases along cascading impoundments in a temperate, low-discharge river: Insights from high frequency water quality monitoring. <i>Scientific Reports</i> , 2019, 9, 6701.	1.6	16
101	Mechanistic model identifies increasing light availability due to sea ice reductions as cause for increasing macroalgae cover in the Arctic. <i>Limnology and Oceanography</i> , 2019, 64, 330-341.	1.6	14
102	Winter inverse lake stratification under historic and future climate change. <i>Limnology and Oceanography Letters</i> , 2022, 7, 302-311.	1.6	14
103	Rates of change in physical and chemical lake variables â€“ are they comparable between large and small lakes?. <i>Hydrobiologia</i> , 2008, 599, 105-110.	1.0	13
104	Increasing algal biomass in Lake VÃnern despite decreasing phosphorus concentrations: A lake-specific phenomenon?. <i>Aquatic Ecosystem Health and Management</i> , 2014, 17, 341-348.	0.3	13
105	A lake classification concept for a more accurate global estimate of the dissolved inorganic carbon export from terrestrial ecosystems to inland waters. <i>Die Naturwissenschaften</i> , 2018, 105, 25.	0.6	13
106	Snapshot Surveys for Lake Monitoring, More Than a Shot in the Dark. <i>Frontiers in Ecology and Evolution</i> , 2018, 6, .	1.1	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. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 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. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 72, 1794236.	0.8	11
110	Increasing dissimilarity of water chemical compositions in a warmer climate. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	1.9	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. <i>Limnology and Oceanography</i> , 2017, 62, S183.	1.6	10
112	Nitrogen and carbon interactions between boreal soils and lakes. <i>Global Biogeochemical Cycles</i> , 2010, 24, .	1.9	9
113	Modeling nonlinear responses of DOC transport in boreal catchments in Sweden. <i>Water Resources Research</i> , 2016, 52, 4970-4989.	1.7	9
114	Diverse drivers of long-term $\text{CO}_2$ increases across thirteen boreal lakes and streams. <i>Inland Waters</i> , 2020, 10, 360-372.	1.1	9
115	Groundwater Carbon Within a Boreal Catchment: Spatiotemporal Variability of a Hidden Aquatic Carbon Pool. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005244.	1.3	9
116	Long-term ice phenology records spanning up to 578 years for 78 lakes around the Northern Hemisphere. <i>Scientific Data</i> , 2022, 9, .	2.4	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. <i>Scientific Data</i> , 2021, 8, 200.	2.4	7
119	Silicon load and the development of diatoms in three river-lake systems in countries surrounding the Baltic Sea. <i>Hydrobiologia</i> , 2008, 599, 67-76.	1.0	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?. <i>Aquatic Sciences</i> , 2012, 74, 77-85.	0.6	6
121	A simplified approach to detect a significant carbon dioxide reduction by phytoplankton in lakes and rivers on a regional and global scale. <i>Die Naturwissenschaften</i> , 2020, 107, 29.	0.6	6
122	The lake as an iron sink - new insights on the role of iron speciation. <i>Chemical Geology</i> , 2021, 584, 120529.	1.4	6
123	Response of phytoplankton in European lakes to a change in the North Atlantic Oscillation. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 2002, 28, 1436-1439.	0.1	5
124	Growing season variability of nitrate along a trophic gradient â€” contrasting patterns between lakes and streams. <i>Aquatic Sciences</i> , 2009, 71, 25-33.	0.6	5
125	Quantification of resuspended particles in sedimentation traps. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 1997, 26, 271-276.	0.1	4
126	Disruptions and re-establishment of the calcium-bicarbonate equilibrium in freshwaters. <i>Science of the Total Environment</i> , 2020, 743, 140626.	3.9	4



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127	Increasingly ice-free winters and their effects on water quality in Sweden'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, .	1.3	2
129	Environmental Impacts of 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 are they comparable between large and small lakes?. , 2007, , 105-110.		0