

Sebastian Sobek

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

8,935
citations

109264
35
h-index

95218
68
g-index

68
all docs

68
docs citations

68
times ranked

7418
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 | Global carbon dioxide emissions from inland waters. <i>Nature</i> , 2013, 503, 355-359. | 13.7 | 1,670 |
| 3 | Temperature-controlled organic carbon mineralization in lake sediments. <i>Nature</i> , 2010, 466, 478-481. | 13.7 | 460 |
| 4 | Patterns and regulation of dissolved organic carbon: An analysis of 7,500 widely distributed lakes. <i>Limnology and Oceanography</i> , 2007, 52, 1208-1219. | 1.6 | 391 |
| 5 | Organic carbon burial efficiency in lake sediments controlled by oxygen exposure time and sediment source. <i>Limnology and Oceanography</i> , 2009, 54, 2243-2254. | 1.6 | 323 |
| 6 | Temperature independence of carbon dioxide supersaturation in global lakes. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a. | 1.9 | 318 |
| 7 | The catchment and climate regulation of pCO ₂ in boreal lakes. <i>Global Change Biology</i> , 2003, 9, 630-641. | 4.2 | 309 |
| 8 | Organic carbon burial in global lakes and reservoirs. <i>Nature Communications</i> , 2017, 8, 1694. | 5.8 | 307 |
| 9 | Role of lakes for organic carbon cycling in the boreal zone. <i>Global Change Biology</i> , 2004, 10, 141-147. | 4.2 | 281 |
| 10 | Mapping lake CDOM by satellite remote sensing. <i>Remote Sensing of Environment</i> , 2005, 94, 535-540. | 4.6 | 247 |
| 11 | Extreme Methane Emissions from a Swiss Hydropower Reservoir: Contribution from Bubbling Sediments. <i>Environmental Science & Technology</i> , 2010, 44, 2419-2425. | 4.6 | 235 |
| 12 | Greenhouse Gas Emissions from Freshwater Reservoirs: What Does the Atmosphere See?. <i>Ecosystems</i> , 2018, 21, 1058-1071. | 1.6 | 145 |
| 13 | Extreme organic carbon burial fuels intense methane bubbling in a temperate reservoir. <i>Geophysical Research Letters</i> , 2012, 39, . | 1.5 | 130 |
| 14 | Large but variable methane production in anoxic freshwater sediment upon addition of allochthonous and autochthonous organic matter. <i>Limnology and Oceanography</i> , 2018, 63, 1488-1501. | 1.6 | 121 |
| 15 | Linking allochthonous dissolved organic matter and boreal lake sediment carbon sequestration: The role of light-mediated flocculation. <i>Limnology and Oceanography</i> , 2008, 53, 2416-2426. | 1.6 | 114 |
| 16 | Using Satellite Remote Sensing to Estimate the Colored Dissolved Organic Matter Absorption Coefficient in Lakes. <i>Ecosystems</i> , 2005, 8, 709-720. | 1.6 | 106 |
| 17 | Large CO ₂ disequilibria in tropical lakes. <i>Global Biogeochemical Cycles</i> , 2009, 23, . | 1.9 | 94 |
| 18 | A Carbon Budget of a Small Humic Lake: An Example of the Importance of Lakes for Organic Matter Cycling in Boreal Catchments. <i>Ambio</i> , 2006, 35, 469-475. | 2.8 | 80 |

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|----|---|-----|-----------|
| 19 | Spatially Resolved Measurements of CO ₂ and CH ₄ Concentration and Gas-Exchange Velocity Highly Influence Carbon-Emission Estimates of Reservoirs. Environmental Science & Technology, 2018, 52, 607-615. | 4.6 | 65 |
| 20 | Hydroelectric carbon sequestration. Nature Geoscience, 2012, 5, 838-840. | 5.4 | 64 |
| 21 | Temperature sensitivity of organic carbon mineralization in contrasting lake sediments. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1215-1225. | 1.3 | 64 |
| 22 | Organic carbon budget for the Gulf of Bothnia. Journal of Marine Systems, 2006, 63, 155-161. | 0.9 | 63 |
| 23 | Carbon Dioxide in Boreal Surface Waters: A Comparison of Lakes and Streams. Ecosystems, 2012, 15, 1295-1307. | 1.6 | 61 |
| 24 | Contribution of Sediment Respiration to Summer CO ₂ Emission from Low Productive Boreal and Subarctic Lakes. Microbial Ecology, 2005, 50, 529-535. | 1.4 | 60 |
| 25 | Predicting the depth and volume of lakes from map-derived parameters. Inland Waters, 2011, 1, 177-184. | 1.1 | 57 |
| 26 | CO ₂ evasion from boreal lakes: Revised estimate, drivers of spatial variability, and future projections. Global Change Biology, 2018, 24, 711-728. | 4.2 | 56 |
| 27 | Predicting lake dissolved organic carbon at a global scale. Scientific Reports, 2020, 10, 8471. | 1.6 | 56 |
| 28 | Seasonal variation of CO ₂ saturation in the Gulf of Bothnia: Indications of marine net heterotrophy. Global Biogeochemical Cycles, 2004, 18, n/a-n/a. | 1.9 | 55 |
| 29 | Low organic carbon burial efficiency in arctic lake sediments. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1231-1243. | 1.3 | 55 |
| 30 | Carbon dioxide and methane emissions of Swedish low-order streams—a national estimate and lessons learnt from more than a decade of observations. Limnology and Oceanography Letters, 2018, 3, 156-167. | 1.6 | 49 |
| 31 | Carbon dioxide evasion from headwater systems strongly contributes to the total export of carbon from a small boreal lake catchment. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 13-28. | 1.3 | 46 |
| 32 | The role of sediments in the carbon budget of a small boreal lake. Limnology and Oceanography, 2016, 61, 1814-1825. | 1.6 | 46 |
| 33 | Carbon Sequestration in a Large Hydroelectric Reservoir: An Integrative Seismic Approach. Ecosystems, 2014, 17, 430-441. | 1.6 | 45 |
| 34 | Extreme drought boosts CO ₂ and CH ₄ emissions from reservoir drawdown areas. Inland Waters, 2018, 8, 329-340. | 1.1 | 44 |
| 35 | High terrestrial carbon load via groundwater to a boreal lake dominated by surface water inflow. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 15-29. | 1.3 | 39 |
| 36 | The burial efficiency of organic carbon in the sediments of Lake Kinneret. Aquatic Sciences, 2011, 73, 355-364. | 0.6 | 36 |

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|----|--|-----|-----------|
| 37 | The effect of lake browning and respiration mode on the burial and fate of carbon and mercury in the sediment of two boreal lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 233-245. | 1.3 | 35 |
| 38 | 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 |
| 39 | Spatial variation of sediment mineralization supports differential CO ₂ emissions from a tropical hydroelectric reservoir. <i>Frontiers in Microbiology</i> , 2013, 4, 101. | 1.5 | 33 |
| 40 | Organic carbon burial efficiency in a subtropical hydroelectric reservoir. <i>Biogeosciences</i> , 2016, 13, 3331-3342. | 1.3 | 33 |
| 41 | Comparing methane ebullition variability across space and time in a Brazilian reservoir. <i>Limnology and Oceanography</i> , 2020, 65, 1623-1634. | 1.6 | 32 |
| 42 | Enhanced carbon loss from anoxic lake sediment through diffusion of dissolved organic carbon. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1959-1977. | 1.3 | 31 |
| 43 | The transformation of macrophyte-derived organic matter to methane relates to plant water and nutrient contents. <i>Limnology and Oceanography</i> , 2019, 64, 1737-1749. | 1.6 | 31 |
| 44 | The CO ₂ -equivalent balance of freshwater ecosystems is non-linearly related to productivity. <i>Global Change Biology</i> , 2020, 26, 5705-5715. | 4.2 | 29 |
| 45 | Regional-scale variation of dissolved organic carbon concentrations in Swedish lakes. <i>Limnology and Oceanography</i> , 2014, 59, 1612-1620. | 1.6 | 28 |
| 46 | Regional Variability and Drivers of Below Ice CO ₂ in Boreal and Subarctic Lakes. <i>Ecosystems</i> , 2016, 19, 461-476. | 1.6 | 28 |
| 47 | Global increase in methane production under future warming of lake bottom waters. <i>Global Change Biology</i> , 2022, 28, 5427-5440. | 4.2 | 27 |
| 48 | Carbon dioxide emission from drawdown areas of a Brazilian reservoir is linked to surrounding land cover. <i>Aquatic Sciences</i> , 2019, 81, 1. | 0.6 | 25 |
| 49 | Benthic ostracode $\delta^{13}C$ as sensor for early Holocene establishment of modern circulation patterns in Central Europe. <i>Quaternary Science Reviews</i> , 2013, 66, 112-122. | 1.4 | 22 |
| 50 | Uncoupled organic matter burial and quality in boreal lake sediments over the Holocene. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1751-1763. | 1.3 | 21 |
| 51 | Methane formation in tropical reservoirs predicted from sediment age and nitrogen. <i>Scientific Reports</i> , 2019, 9, 11017. | 1.6 | 20 |
| 52 | Changes in bacterial community composition along a solar radiation gradient in humic waters. <i>Aquatic Sciences</i> , 2006, 68, 415-424. | 0.6 | 19 |
| 53 | Temperature Dependence of Apparent Respiratory Quotients and Oxygen Penetration Depth in Contrasting Lake Sediments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 3076-3087. | 1.3 | 19 |
| 54 | High spatial variability of gas transfer velocity in streams revealed by turbulence measurements. <i>Inland Waters</i> , 2018, 8, 461-473. | 1.1 | 19 |

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|----|---|------|-----------|
| 55 | An empirical model to predict methane production in inland water sediment from particular organic matter supply and reactivity. <i>Limnology and Oceanography</i> , 2021, 66, 3643-3655. | 1.6 | 18 |
| 56 | Phosphorus transport by the largest Amazon tributary (Madeira River, Brazil) and its sensitivity to precipitation and damming. <i>Inland Waters</i> , 2015, 5, 275-282. | 1.1 | 17 |
| 57 | High variability in iron-bound organic carbon among five boreal lake sediments. <i>Biogeochemistry</i> , 2018, 139, 19-29. | 1.7 | 17 |
| 58 | Widespread release of dissolved organic carbon from anoxic boreal lake sediments. <i>Inland Waters</i> , 2017, 7, 151-163. | 1.1 | 16 |
| 59 | Emission of CO ₂ from hydroelectric reservoirs in northern Sweden. <i>Archiv für Hydrobiologie</i> , 2004, 159, 25-42. | 1.1 | 15 |
| 60 | Reduced Mineralization of Terrestrial OC in Anoxic Sediment Suggests Enhanced Burial Efficiency in Reservoirs Compared to Other Depositional Environments. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 678-688. | 1.3 | 15 |
| 61 | High organic carbon burial but high potential for methane ebullition in the sediments of an Amazonian hydroelectric reservoir. <i>Biogeosciences</i> , 2020, 17, 1495-1505. | 1.3 | 15 |
| 62 | Spatially Resolved Measurements in Tropical Reservoirs Reveal Elevated Methane Ebullition at River Inflows and at High Productivity. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006717. | 1.9 | 15 |
| 63 | Hotspots of Diffusive CO ₂ and CH ₄ Emission From Tropical Reservoirs Shift Through Time. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006014. | 1.3 | 14 |
| 64 | Cross-continental importance of CH ₄ emissions from dry inland-waters. <i>Science of the Total Environment</i> , 2022, 814, 151925. | 3.9 | 13 |
| 65 | Implications of river intrusion and convective mixing on the spatial and temporal variability of under-ice CO ₂ . <i>Inland Waters</i> , 2019, 9, 162-176. | 1.1 | 12 |
| 66 | Where does the river end? Drivers of spatiotemporal variability in CO ₂ concentration and flux in the inflow area of a large boreal lake. <i>Limnology and Oceanography</i> , 2020, 65, 1161-1174. | 1.6 | 8 |
| 67 | Low sediment-water gas exchange in a small boreal lake. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 2493-2505. | 1.3 | 4 |
| 68 | Cold carbon storage. <i>Nature</i> , 2014, 511, 415-416. | 13.7 | 1 |