

Christoph Humborg

List of Publications by Year in descending order

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116
papers

9,041
citations

50170

46
h-index

43802

91
g-index

134
all docs

134
docs citations

134
times ranked

9929
citing authors

#	ARTICLE	IF	CITATIONS
1	Future changes in the Baltic Sea acidâ€base (pH) and oxygen balances. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 64, 19586.	0.8	84
2	Reference state, structure, regime shifts, and regulatory drivers in a coastal sea over the last century: The Central Baltic Sea case. <i>Limnology and Oceanography</i> , 2022, 67, .	1.6	24
3	Re-thinking the â€œecological envelopeâ€ of Eastern Baltic cod (<i>Gadus morhua</i>): conditions for productivity, reproduction, and feeding over time. <i>ICES Journal of Marine Science</i> , 2022, 79, 689-708.	1.2	10
4	High spatiotemporal variability of methane concentrations challenges estimates of emissions across vegetated coastal ecosystems. <i>Global Change Biology</i> , 2022, 28, 4308-4322.	4.2	16
5	Biogeochemical functioning of the Baltic Sea. <i>Earth System Dynamics</i> , 2022, 13, 633-685.	2.7	22
6	Origin and fate of dissolved organic matter in four shallow Baltic Sea estuaries. <i>Biogeochemistry</i> , 2021, 154, 385-403.	1.7	16
7	Food-web comparisons between two shallow vegetated habitat types in the Baltic Sea. <i>Marine Environmental Research</i> , 2021, 169, 105402.	1.1	5
8	The Importance of Benthic Nutrient Fluxes in Supporting Primary Production in the Laptev and East Siberian Shelf Seas. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006849.	1.9	8
9	Use of food web knowledge in environmental conservation and management of living resources in the Baltic Sea. <i>ICES Journal of Marine Science</i> , 2021, 78, 2645-2663.	1.2	6
10	Increasing the cost-effectiveness of nutrient reduction targets using different spatial scales. <i>Science of the Total Environment</i> , 2021, 790, 147824.	3.9	7
11	Anthropogenic Inputs of Terrestrial Organic Matter Influence Carbon Loading and Methanogenesis in Coastal Baltic Sea Sediments. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	3
12	Potential links between Baltic Sea submarine terraces and groundwater seeping. <i>Earth Surface Dynamics</i> , 2020, 8, 1-15.	1.0	16
13	Macroalgae fuels coastal soft-sediment macrofauna: A triple-isotope approach across spatial scales. <i>Marine Environmental Research</i> , 2020, 162, 105163.	1.1	12
14	Low Abundance of Methanotrophs in Sediments of Shallow Boreal Coastal Zones With High Water Methane Concentrations. <i>Frontiers in Microbiology</i> , 2020, 11, 1536.	1.5	14
15	Removal of phosphorus and nitrogen in sediments of the eutrophic Stockholm archipelago, Baltic Sea. <i>Biogeosciences</i> , 2020, 17, 2745-2766.	1.3	24
16	Understanding Environmental Changes in Temperate Coastal Seas: Linking Models of Benthic Fauna to Carbon and Nutrient Fluxes. <i>Frontiers in Marine Science</i> , 2020, 7, .	1.2	13
17	Letter to editor regarding Kotta et al. 2020: Cleaning up seas using blue growth initiatives: Mussel farming for eutrophication control in the Baltic Sea. <i>Science of the Total Environment</i> , 2020, 727, 138665.	3.9	3
18	High Emissions of Carbon Dioxide and Methane From the Coastal Baltic Sea at the End of a Summer Heat Wave. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	41

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19	Comment on "Understanding the Permafrost-Hydrate System and Associated Methane Releases in the East Siberian Arctic Shelf". <i>Geosciences</i> (Switzerland), 2019, 9, 384.	1.0	1
20	Bathymetric properties of the Baltic Sea. <i>Ocean Science</i> , 2019, 15, 905-924.	1.3	28
21	Sedimentary alkalinity generation and long-term alkalinity development in the Baltic Sea. <i>Biogeosciences</i> , 2019, 16, 437-456.	1.3	18
22	Remineralization rate of terrestrial DOC as inferred from CO ₂ supersaturated coastal waters. <i>Biogeosciences</i> , 2019, 16, 863-879.	1.3	9
23	Reducing agricultural nutrient surpluses in a large catchment "Links to livestock density. <i>Science of the Total Environment</i> , 2019, 648, 1549-1559.	3.9	88
24	Opportunities to reduce nutrient inputs to the Baltic Sea by improving manure use efficiency in agriculture. <i>Regional Environmental Change</i> , 2018, 18, 1843-1854.	1.4	39
25	Non-Redfieldian Dynamics Explain Seasonal pCO ₂ Drawdown in the Gulf of Bothnia. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 166-188.	1.0	21
26	Stable silicon isotopic compositions of the Lena River and its tributaries: Implications for silicon delivery to the Arctic Ocean. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 241, 120-133.	1.6	21
27	A Century of Legacy Phosphorus Dynamics in a Large Drainage Basin. <i>Global Biogeochemical Cycles</i> , 2018, 32, 1107-1122.	1.9	67
28	Influence of the bordering shelves on nutrient distribution in the Arctic halocline inferred from water column nitrate isotopes. <i>Limnology and Oceanography</i> , 2018, 63, 2154-2170.	1.6	23
29	Direct determination of the air-sea CO ₂ gas transfer velocity in Arctic sea ice regions. <i>Geophysical Research Letters</i> , 2017, 44, 3770-3778.	1.5	43
30	Sea-air exchange patterns along the central and outer East Siberian Arctic Shelf as inferred from continuous CO ₂ , stable isotope, and bulk chemistry measurements. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1173-1191.	1.9	13
31	Advances in NANI and NAPI accounting for the Baltic drainage basin: spatial and temporal trends and relationships to watershed TN and TP fluxes. <i>Biogeochemistry</i> , 2017, 133, 245-261.	1.7	67
32	Carbon geochemistry of plankton-dominated samples in the Laptev and East Siberian shelves: contrasts in suspended particle composition. <i>Ocean Science</i> , 2017, 13, 735-748.	1.3	12
33	Export of calcium carbonate corrosive waters from the East Siberian Sea. <i>Biogeosciences</i> , 2017, 14, 1811-1823.	1.3	24
34	Temporal and spatial variations of rock weathering and CO ₂ consumption in the Baltic Sea catchment. <i>Chemical Geology</i> , 2017, 466, 57-69.	1.4	10
35	Methane fluxes from the sea to the atmosphere across the Siberian shelf seas. <i>Geophysical Research Letters</i> , 2016, 43, 5869-5877.	1.5	83
36	Tracing terrestrial DOC in the Baltic Sea "A 3D model study. <i>Global Biogeochemical Cycles</i> , 2016, 30, 134-148.	1.9	17

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37	Identifying Hot Spots of Agricultural Nitrogen Loss Within the Baltic Sea Drainage Basin. <i>Water, Air, and Soil Pollution</i> , 2016, 227, 1.	1.1	19
38	Nitrogen surface water retention in the Baltic Sea drainage basin. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 981-996.	1.9	23
39	Modelling the ^{13}C and ^{12}C isotopes of inorganic and organic carbon in the Baltic Sea. <i>Journal of Marine Systems</i> , 2015, 148, 122-130.	0.9	6
40	Application of a novel modeling tool with multistressor functionality to support management of organic contaminants in the Baltic Sea. <i>Ambio</i> , 2015, 44, 498-506.	2.8	16
41	Seasonal and Regional Patterns in Performance for a Baltic Sea Drainage Basin Hydrologic Model. <i>Journal of the American Water Resources Association</i> , 2015, 51, 550-566.	1.0	7
42	Environmental Impacts of Freshwater Biogeochemistry. <i>Regional Climate Studies</i> , 2015, , 307-336.	1.2	1
43	Catchment-scale dissolved carbon concentrations and export estimates across six subarctic streams in northern Sweden. <i>Biogeosciences</i> , 2014, 11, 525-537.	1.3	50
44	External total alkalinity loads versus internal generation: The influence of nonriverine alkalinity sources in the Baltic Sea. <i>Global Biogeochemical Cycles</i> , 2014, 28, 1358-1370.	1.9	33
45	Effects of growth and dissolution on the fractionation of silicon isotopes by estuarine diatoms. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 130, 156-166.	1.6	35
46	Carbon cycling in the Baltic Sea – The fate of allochthonous organic carbon and its impact on air-sea CO_2 exchange. <i>Journal of Marine Systems</i> , 2014, 129, 289-302.	0.9	56
47	Future Nutrient Load Scenarios for the Baltic Sea Due to Climate and Lifestyle Changes. <i>Ambio</i> , 2014, 43, 337-351.	2.8	31
48	Biogeochemical Control of the Coupled CO_2 - O_2 System of the Baltic Sea: A Review of the Results of Baltic-C. <i>Ambio</i> , 2014, 43, 49-59.	2.8	42
49	Reduction of Baltic Sea Nutrient Inputs and Allocation of Abatement Costs Within the Baltic Sea Catchment. <i>Ambio</i> , 2014, 43, 11-25.	2.8	56
50	Hydro-economic modelling of cost-effective transboundary water quality management in the Baltic Sea. <i>Water Resources and Economics</i> , 2014, 5, 1-23.	0.9	43
51	Hypoxia Sustains Cyanobacteria Blooms in the Baltic Sea. <i>Environmental Science & Technology</i> , 2014, 48, 2598-2602.	4.6	109
52	Global carbon dioxide emissions from inland waters. <i>Nature</i> , 2013, 503, 355-359.	18.7	1,670
53	Modeling Social-Ecological Scenarios in Marine Systems. <i>BioScience</i> , 2013, 63, 735-744.	2.2	13
54	Silicon isotope enrichment in diatoms during nutrient-limited blooms in a eutrophied river system. <i>Journal of Geochemical Exploration</i> , 2013, 132, 173-180.	1.5	18

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55	Spatiotemporal variations of CO_2 and $\delta^{13}\text{C}$ -DIC in subarctic streams in northern Sweden. <i>Global Biogeochemical Cycles</i> , 2013, 27, 176-186.	1.9	28
56	Modeling Social-Ecological Scenarios in Marine Systems. <i>BioScience</i> , 2013, 63, 735-744.	2.2	55
57	Riverine nitrogen export in Swedish catchments dominated by atmospheric inputs. <i>Biogeochemistry</i> , 2012, 111, 203-217.	1.7	14
58	Degradation of terrestrial organic carbon, primary production and out-gassing of CO_2 in the Laptev and East Siberian Seas as inferred from $\delta^{13}\text{C}$ values of DIC. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 95, 143-159.	1.6	68
59	Nitrogen fluxes from the landscape are controlled by net anthropogenic nitrogen inputs and by climate. <i>Frontiers in Ecology and the Environment</i> , 2012, 10, 37-43.	1.9	281
60	A centennial record of fluvial organic matter input from the discontinuous permafrost catchment of Lake TornetrÅsk. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	15
61	Net anthropogenic nitrogen inputs to watersheds and riverine N export to coastal waters: a brief overview. <i>Current Opinion in Environmental Sustainability</i> , 2012, 4, 203-211.	3.1	145
62	Tracing inputs of terrestrial high molecular weight dissolved organic matter within the Baltic Sea ecosystem. <i>Biogeosciences</i> , 2012, 9, 4465-4475.	1.3	52
63	Evaluating regional variation of net anthropogenic nitrogen and phosphorus inputs (NANI/NAPI), major drivers, nutrient retention pattern and management implications in the multinational areas of Baltic Sea basin. <i>Ecological Modelling</i> , 2012, 227, 117-135.	1.2	125
64	Five critical questions of scale for the coastal zone. <i>Estuarine, Coastal and Shelf Science</i> , 2012, 96, 9-21.	0.9	44
65	Inventories and behavior of particulate organic carbon in the Laptev and East Siberian seas. <i>Global Biogeochemical Cycles</i> , 2011, 25, n/a-n/a.	1.9	67
66	Hypoxia Is Increasing in the Coastal Zone of the Baltic Sea. <i>Environmental Science & Technology</i> , 2011, 45, 6777-6783.	4.6	364
67	Nitrogen processes in aquatic ecosystems. , 2011, , 126-146.		46
68	Climate dependent diatom production is preserved in biogenic Si isotope signatures. <i>Biogeosciences</i> , 2011, 8, 3491-3499.	1.3	12
69	History and scenarios of future development of Baltic Sea eutrophication. <i>Estuarine, Coastal and Shelf Science</i> , 2011, 92, 307-322.	0.9	87
70	Overview of eutrophication indicators to assess environmental status within the European Marine Strategy Framework Directive. <i>Estuarine, Coastal and Shelf Science</i> , 2011, 93, 117-131.	0.9	375
71	Making the ecosystem approach operationalâ€”Can regime shifts in ecological- and governance systems facilitate the transition?. <i>Marine Policy</i> , 2010, 34, 1290-1299.	1.5	99
72	CO_2 supersaturation along the aquatic conduit in Swedish watersheds as constrained by terrestrial respiration, aquatic respiration and weathering. <i>Global Change Biology</i> , 2010, 16, 1966-1978.	4.2	177

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73	The relationship between subsurface hydrology and dissolved carbon fluxes for a sub-arctic catchment. <i>Hydrology and Earth System Sciences</i> , 2010, 14, 941-950.	1.9	53
74	Nonconservative behavior of dissolved organic carbon across the Laptev and East Siberian seas. <i>Global Biogeochemical Cycles</i> , 2010, 24, .	1.9	107
75	An enormous amorphous silica stock in boreal wetlands. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	46
76	Scenario Analysis on Protein Consumption and Climate Change Effects on Riverine N Export to the Baltic Sea. <i>Environmental Science & Technology</i> , 2010, 44, 2379-2385.	4.6	50
77	Stable silicon isotope analysis on nanomole quantities using MC-ICP-MS with a hexapole gas-collision cell. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 156-162.	1.6	13
78	Estimation of permafrost thawing rates in a sub-arctic catchment using recession flow analysis. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 595-604.	1.9	101
79	Landscape elements and river chemistry as affected by river regulation " a 3-D perspective. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 1597-1606.	1.9	19
80	Nitrogen driving force and pressure relationships at contrasting scales: Implications for catchment management. <i>International Journal of River Basin Management</i> , 2009, 7, 221-232.	1.5	6
81	How well do ecosystem indicators communicate the effects of anthropogenic eutrophication?. <i>Estuarine, Coastal and Shelf Science</i> , 2009, 82, 583-596.	0.9	87
82	Landscape variations in stream water SO ₄ ²⁻ and ³⁴ S/SO ₄ in a boreal stream network. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 4648-4660.	1.6	23
83	Estimation of permafrost thawing rates in the sub-arctic using recession flow analysis. <i>IOP Conference Series: Earth and Environmental Science</i> , 2009, 6, 092018.	0.2	2
84	Nutrient budgets for European seas: A measure of the effectiveness of nutrient reduction policies. <i>Marine Pollution Bulletin</i> , 2008, 56, 1609-1617.	2.3	84
85	Modelling nutrient fluxes from sub-arctic basins: Comparison of pristine vs. dammed rivers. <i>Journal of Marine Systems</i> , 2008, 73, 236-249.	0.9	45
86	Silicon dynamics in the Oder estuary, Baltic Sea. <i>Journal of Marine Systems</i> , 2008, 73, 250-262.	0.9	26
87	Changes in dissolved silicate loads to the Baltic Sea " The effects of lakes and reservoirs. <i>Journal of Marine Systems</i> , 2008, 73, 223-235.	0.9	60
88	Past, present and future state of the biogeochemical Si cycle in the Baltic Sea. <i>Journal of Marine Systems</i> , 2008, 73, 338-346.	0.9	54
89	The Baltic Sea a century ago " a reconstruction from model simulations, verified by observations. <i>Journal of Marine Systems</i> , 2008, 74, 485-494.	0.9	109
90	Climate-related Change in Terrestrial and Freshwater Ecosystems. , 2008, , 221-308.		12

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91	Tracing terrestrial organic matter by $\delta^{34}\text{S}$ and $\delta^{13}\text{C}$ signatures in a subarctic estuary. <i>Limnology and Oceanography</i> , 2008, 53, 2594-2602.	1.6	59
92	Nutrient processes and consequences.. , 2008, , 30-45.		2
93	Management Options and Effects on a Marine Ecosystem: Assessing the Future of the Baltic. <i>Ambio</i> , 2007, 36, 243-249.	2.8	100
94	Modeling Riverine Nutrient Transport to the Baltic Sea: A Large-scale Approach. <i>Ambio</i> , 2007, 36, 124-133.	2.8	46
95	Riverine transport of biogenic elements to the Baltic Sea – past and possible future perspectives. <i>Hydrology and Earth System Sciences</i> , 2007, 11, 1593-1607.	1.9	35
96	Nitrogen budgets of the Polish agriculture 1960–2000: implications for riverine nitrogen loads to the Baltic Sea from transitional countries. <i>Biogeochemistry</i> , 2007, 85, 153-168.	1.7	35
97	Modeling hydrology and silicon-carbon interactions in taiga and tundra biomes from a landscape perspective: Implications for global warming feedbacks. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	1.9	40
98	Source identification of nitrate by means of isotopic tracers in the Baltic Sea catchments. <i>Biogeosciences</i> , 2006, 3, 663-676.	1.3	115
99	Decreased Silica Land–sea Fluxes through Damming in the Baltic Sea Catchment – Significance of Particle Trapping and Hydrological Alterations. <i>Biogeochemistry</i> , 2006, 77, 265-281.	1.7	138
100	River Nutrient Loads and Catchment Size. <i>Biogeochemistry</i> , 2005, 75, 83-107.	1.7	59
101	Nutrient variations in boreal and subarctic Swedish rivers: Landscape control of land–sea fluxes. <i>Limnology and Oceanography</i> , 2004, 49, 1871-1883.	1.6	88
102	Nutrient land–sea fluxes in oligotrophic and pristine estuaries of the Gulf of Bothnia, Baltic Sea. <i>Estuarine, Coastal and Shelf Science</i> , 2003, 56, 781-793.	0.9	58
103	Nitrogen and phosphorus budgets of the Gulf of Gdańsk (Baltic Sea). <i>Estuarine, Coastal and Shelf Science</i> , 2003, 57, 239-248.	0.9	56
104	Hypoxia in the Baltic Sea and Basin-Scale Changes in Phosphorus Biogeochemistry. <i>Environmental Science & Technology</i> , 2002, 36, 5315-5320.	4.6	372
105	Hydrological alterations with river damming in northern Sweden: Implications for weathering and river biogeochemistry. <i>Global Biogeochemical Cycles</i> , 2002, 16, 12-1-12-13.	1.9	83
106	A box model approach for a long-term assessment of estuarine eutrophication, Szczecin Lagoon, southern Baltic. <i>Journal of Marine Systems</i> , 2000, 25, 387-403.	0.9	50
107	Silicon Retention in River Basins: Far-reaching Effects on Biogeochemistry and Aquatic Food Webs in Coastal Marine Environments. <i>Ambio</i> , 2000, 29, 45-50.	2.8	301
108	Perturbed silicon cycle discussed. <i>Eos</i> , 2000, 81, 198.	0.1	2

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109	Hydrological Alterations and Marine Biogeochemistry: A Silicate Issue?. <i>BioScience</i> , 2000, 50, 776.	2.2	131
110	The exceptional Oder Flood in summer 1997 – the fate of nutrients and particulate organic matter in the Baltic Sea. <i>Ocean Dynamics</i> , 1998, 50, 169-181.	0.2	16
111	An extensive bloom of the N ₂ -fixing cyanobacterium <i>Trichodesmium erythraeum</i> in the central Arabian Sea. <i>Marine Ecology - Progress Series</i> , 1998, 172, 281-292.	0.9	217
112	Effect of Danube River dam on Black Sea biogeochemistry and ecosystem structure. <i>Nature</i> , 1997, 386, 385-388.	13.7	665
113	Primary Productivity Regime and Nutrient Removal in the Danube Estuary. <i>Estuarine, Coastal and Shelf Science</i> , 1997, 45, 579-589.	0.9	42
114	Long-term ecological changes in Romanian coastal Waters of the Black Sea. <i>Marine Pollution Bulletin</i> , 1996, 32, 32-38.	2.3	126
115	Nitrogen flows from European regional watersheds to coastal marine waters. , 0, , 271-297.		54
116	On the decline of eastern Baltic cod: we need to take more holistic views into account. Reply to Brander (2022) comment on SvedÅng et al. (2022). <i>ICES Journal of Marine Science</i> , 0, , .	1.2	0