Sonja C. JÃ¤hnig

List of Publications by Year
in descending order

95 papers	4,631 citations	109311 35 h-index	118840 62 g-index
110 all docs	110 docs citations	110 times ranked	5436 citing authors

#	Article	IF	Citations
1	The role of the uplift of the Qinghaiâ€Tibetan Plateau for the evolution of Tibetan biotas. Biological Reviews, 2015, 90, 236-253.	10.4	622
2	The <i>Alliance for Freshwater Life</i>: A global call to unite efforts for freshwater biodiversity science and conservation. Aquatic Conservation: Marine and Freshwater Ecosystems, 2018, 28, 1015-1022.	2.0	190
3	Climate-change winners and losers: stream macroinvertebrates of a submontane region in Central Europe. Freshwater Biology, 2011, 56, 2009-2020.	2.4	164
4	Modelling distribution in <scp>E</scp>uropean stream macroinvertebrates under future climates. Global Change Biology, 2013, 19, 752-762.	9.5	159
5	The global decline of freshwater megafauna. Global Change Biology, 2019, 25, 3883-3892.	9.5	158
6	River restoration success: a question of perception. , 2011, 21, 2007-2015.		156
7	The impact of hydromorphological restoration on river ecological status: a comparison of fish, benthic invertebrates, and macrophytes. Hydrobiologia, 2013, 704, 475-488.	2.0	149
8	A comparative analysis of restoration measures and their effects on hydromorphology and benthic invertebrates in 26 central and southern European rivers. Journal of Applied Ecology, 2010, 47, 671-680.	4.0	128
9	Dispersal as a limiting factor in the colonization of restored mountain streams by plants and macroinvertebrates. Journal of Applied Ecology, 2011, 48, 1241-1250.	4.0	100
10	Future large hydropower dams impact global freshwater megafauna. Scientific Reports, 2019, 9, 18531.	3.3	96
11	A global agenda for advancing freshwater biodiversity research. Ecology Letters, 2022, 25, 255-263.	6.4	95
12	Context dependency in biodiversity patterns of central German stream metacommunities. Freshwater Biology, 2016, 61, 607-620.	2.4	92
13	Safeguarding freshwater life beyond 2020: Recommendations for the new global biodiversity framework from the European experience. Conservation Letters, 2021, 14, e12771.	5.7	92
14	Contrasting metacommunity structure and beta diversity in an aquaticâ€floodplain system. Oikos, 2016, 125, 686-697.	2.7	88
15	Effects of reâ€braiding measures on hydromorphology, floodplain vegetation, ground beetles and benthic invertebrates in mountain rivers. Journal of Applied Ecology, 2009, 46, 406-416.	4.0	87
16	The three Rs of river ecosystem resilience: Resources, recruitment, and refugia. River Research and Applications, 2019, 35, 107-120.	1.7	86
17	Limiting factors and thresholds for macroinvertebrate assemblages in European rivers: Empirical evidence from three datasets on water quality, catchment urbanization, and river restoration. Ecological Indicators, 2012, 18, 63-72.	6.3	81
18	Re-Meandering German Lowland Streams: Qualitative and Quantitative Effects of Restoration Measures on Hydromorphology and Macroinvertebrates. Environmental Management, 2009, 44, 745-754.	2.7	76

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19	Application of species distribution models in stream ecosystems: the challenges of spatial and temporal scale, environmental predictors and species occurrence data. Fundamental and Applied Limnology, 2015, 186, 45-61.	0.7	76
20	Integrating catchment properties in small scale species distribution models of stream macroinvertebrates. Ecological Modelling, 2014, 277, 77-86.	2.5	70
21	Flagship umbrella species needed for the conservation of overlooked aquatic biodiversity. Conservation Biology, 2017, 31, 481-485.	4.7	70
22	Freshwater Megafauna: Flagships for Freshwater Biodiversity under Threat. BioScience, 2017, 67, 919-927.	4.9	68
23	An attack on two fronts: predicting how changes in land use and climate affect the distribution of stream macroinvertebrates. Freshwater Biology, 2015, 60, 1443-1458.	2.4	66
24	Disappearing giants: a review of threats to freshwater megafauna. Wiley Interdisciplinary Reviews: Water, 2017, 4, e1208.	6.5	61
25	Freshwater megafauna diversity: Patterns, status and threats. Diversity and Distributions, 2018, 24, 1395-1404.	4.1	59
26	Metacommunity structuring in Himalayan streams over large elevational gradients: the role of dispersal routes and niche characteristics. Journal of Biogeography, 2017, 44, 62-74.	3.0	57
27	Substrate-specific macroinvertebrate diversity patterns following stream restoration. Aquatic Sciences, 2008, 70, 292-303.	1.5	52
28	Modelling of riverine ecosystems by integrating models: conceptual approach, a case study and research agenda. Journal of Biogeography, 2012, 39, 2253-2263.	3.0	52
29	Choice of study area and predictors affect habitat suitability projections, but not the performance of species distribution models of stream biota. Ecological Modelling, 2013, 257, 1-10.	2.5	49
30	Twentyâ€five essential research questions to inform the protection and restoration of freshwater biodiversity. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 2632-2653.	2.0	49
31	From metaâ€system theory to the sustainable management of rivers in the Anthropocene. Frontiers in Ecology and the Environment, 2022, 20, 49-57.	4.0	43
32	Substratum associations of benthic invertebrates in lowland and mountain streams. Ecological Indicators, 2013, 30, 178-189.	6.3	42
33	Mountain river restoration measures and their success(ion): Effects on river morphology, local species pool, and functional composition of three organism groups. Ecological Indicators, 2014, 38, 243-255.	6.3	42
34	Expanding conservation culturomics and iEcology from terrestrial to aquatic realms. PLoS Biology, 2020, 18, e3000935.	5.6	41
35	Hydromorphological parameters indicating differences between singleâ€and multipleâ€channel mountain rivers in Germany, in relation to their modification and recovery. Aquatic Conservation: Marine and Freshwater Ecosystems, 2008, 18, 1200-1216.	2.0	39
36	Restoration effort, habitat mosaics, and macroinvertebrates â€" does channel form determine community composition?. Aquatic Conservation: Marine and Freshwater Ecosystems, 2009, 19, 157-169.	2.0	39

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37	Climate change impacts on ecologically relevant hydrological indicators in three catchments in three European ecoregions. Ecological Engineering, 2019, 127, 404-416.	3.6	39
38	Spatially explicit species distribution models: A missed opportunity in conservation planning?. Diversity and Distributions, 2019, 25, 758-769.	4.1	39
39	Projected effects of Climateâ€changeâ€induced flow alterations on stream macroinvertebrate abundances. Ecology and Evolution, 2018, 8, 3393-3409.	1.9	38
40	Restoring Rivers and Floodplains for Habitat and Flood Risk Reduction: Experiences in Multi-Benefit Floodplain Management From California and Germany. Frontiers in Environmental Science, 2022, 9, .	3.3	37
41	Rethinking megafauna. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20192643.	2.6	35
42	Revisiting global trends in freshwater insect biodiversity. Wiley Interdisciplinary Reviews: Water, 2021, 8, e1506.	6.5	34
43	Environmental Controls on River Assemblages at the Regional Scale: An Application of the Elements of Metacommunity Structure Framework. PLoS ONE, 2015, 10, e0135450.	2.5	33
44	Quantitative hydrological preferences of benthic stream invertebrates in Germany. Ecological Indicators, 2017, 79, 163-172.	6.3	33
45	The Freshwater Information Platform: a global online network providing data, tools and resources for science and policy support. Hydrobiologia, 2019, 838, 1-11.	2.0	32
46	Impacts of land use changes on hydrological components and macroinvertebrate distributions in the Poyang lake area. Ecohydrology, 2015, 8, 1119-1136.	2.4	31
47	The potential of ecosystem-based management to integrate biodiversity conservation and ecosystem service provision in aquatic ecosystems. Science of the Total Environment, 2019, 672, 1017-1020.	8.0	29
48	Elements of metacommunity structure of river and riparian assemblages: Communities, taxonomic groups and deconstructed trait groups. Ecological Complexity, 2016, 25, 35-43.	2.9	27
49	Invasion impacts and dynamics of a Europeanâ€wide introduced species. Global Change Biology, 2022, 28, 4620-4632.	9.5	27
50	The climate sensitive zone along an altitudinal gradient in central Himalayan rivers: a useful concept to monitor climate change impacts in mountain regions. Climatic Change, 2015, 132, 265-278.	3.6	26
51	Improving hydrological model optimization for riverine species. Ecological Indicators, 2017, 80, 376-385.	6.3	26
52	Social equity shapes zone-selection: Balancing aquatic biodiversity conservation and ecosystem services delivery in the transboundary Danube River Basin. Science of the Total Environment, 2019, 656, 797-807.	8.0	25
53	Relation between floodplain land use and river hydromorphology on different spatial scales a case study from two lower-mountain catchments in Germany. Fundamental and Applied Limnology, 2009, 174, 63-73.	0.7	23
54	Elevation, aspect, and local environment jointly determine diatom and macroinvertebrate diversity in the Cangshan Mountain, Southwest China. Ecological Indicators, 2020, 108, 105618.	6.3	23

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55	Impacts of loss of free-flowing rivers on global freshwater megafauna. Biological Conservation, 2021, 263, 109335.	4.1	23
56	Combining eight research areas to foster the uptake of ecosystemâ€based management in fresh waters. Aquatic Conservation: Marine and Freshwater Ecosystems, 2019, 29, 1161-1173.	2.0	21
57	Current and future latitudinal gradients in stream macroinvertebrate richness across North America. Freshwater Science, 2014, 33, 1136-1147.	1.8	20
58	A high-resolution streamflow and hydrological metrics dataset for ecological modeling using a regression model. Scientific Data, 2018, 5, 180224.	5.3	20
59	Using streamflow observations to estimate the impact of hydrological regimes and anthropogenic water use on European stream macroinvertebrate occurrences. Ecohydrology, 2017, 10, e1895.	2.4	19
60	Climatic and Catchment-Scale Predictors of Chinese Stream Insect Richness Differ between Taxonomic Groups. PLoS ONE, 2015, 10, e0123250.	2.5	19
61	Combined effects of lifeâ€history traits and human impact on extinction risk of freshwater megafauna. Conservation Biology, 2021, 35, 643-653.	4.7	18
62	River water quality assessment in selected Yangtze tributaries: Background and method development. Journal of Earth Science (Wuhan, China), 2010, 21, 876-881.	3.2	16
63	The Rise of Riverine Flow-ecology and Environmental Flow Research. Environmental Processes, 2014, 1, 323-330.	3.5	16
64	Challenges and opportunities of German-Chinese cooperation in water science and technology. Environmental Earth Sciences, 2015, 73, 4861-4871.	2.7	16
65	Anthropogenic land-use stress alters community concordance at the river-riparian interface. Ecological Indicators, 2016, 65, 133-141.	6.3	16
66	Exceptional body sizeâ€"extinction risk relations shed new light on the freshwater biodiversity crisis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10263-E10264.	7.1	16
67	Streamflow-based evaluation of climate model sub-selection methods. Climatic Change, 2020, 163, 1267-1285.	3.6	16
68	Characterizing macroinvertebrate communities across China: Large-scale implementation of a self-organizing map. Ecological Indicators, 2012, 23, 394-401.	6.3	14
69	Environmental and spatial characterisation of an unknown fauna using DNA sequencing â€" an example with Himalayan Hydropsychidae (Insecta: Trichoptera). Freshwater Biology, 2016, 61, 1905-1920.	2.4	14
70	From topography to hydrologyâ€"The modifiable area unit problem impacts freshwater species distribution models. Ecology and Evolution, 2020, 10, 2956-2968.	1.9	14
71	Introducing the H2020 AQUACROSS project: Knowledge, Assessment, and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies. Science of the Total Environment, 2019, 652, 320-329.	8.0	13
72	A comparison of habitat diversity and interannual habitat dynamics in actively and passively restored mountain rivers of Germany. Hydrobiologia, 2013, 712, 89-104.	2.0	12

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73	A new model linking macroinvertebrate assemblages to habitat composition in rivers: development, sensitivity and univariate application. Fundamental and Applied Limnology, 2015, 186, 117-133.	0.7	12
74	More exposure opportunities for promoting freshwater conservation. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 3626-3635.	2.0	11
75	Latitudinal patterns and large-scale environmental determinants of stream insect richness across Europe. Limnologica, 2015, 55, 33-43.	1.5	10
76	Variation in macroinvertebrate community structure of functional process zones along the river continuum: New elements for the interpretation of the river ecosystem synthesis. River Research and Applications, 2021, 37, 665-674.	1.7	10
77	Increased sediment deposition triggered by climate change impacts freshwater pearl mussel habitats and metapopulations. Journal of Applied Ecology, 2021, 58, 1933-1944.	4.0	10
78	Ecosystem Services of River Systems â€“ Irreplaceable, Undervalued, and at Risk. , 2022, , 424-435.		10
79	On the use of multicriteria decision analysis to formally integrate community values into ecosystemâ€based freshwater management. River Research and Applications, 2019, 35, 1666-1676.	1.7	9
80	Identifying and applying an optimum set of environmental variables in species distribution models. Inland Waters, 2020, 10, 11-28.	2.2	8
81	A meeting framework for inclusive and sustainable science. Nature Ecology and Evolution, 2020, 4, 668-671.	7.8	8
82	Communityâ€"environment relationships of riverine invertebrate communities in central Chinese streams. Environmental Earth Sciences, 2015, 74, 6431-6442.	2.7	7
83	Modelling spatial distribution of surface runoff and sediment yield in a Chinese river basin without continuous sediment monitoring. Hydrological Sciences Journal, 0, , 1-24.	2.6	7
84	Molecular association and morphological characterisation of Himalopsyche larval types (Trichoptera, Rhyacophilidae). ZooKeys, 2018, 773, 79-108.	1.1	7
85	When is a hydrological model sufficiently calibrated to depict flow preferences of riverine species?. Ecohydrology, 2020, 13, e2193.	2.4	7
86	Put freshwater megafauna on the table before they are eaten to extinction. Conservation Letters, 2019, 12, e12662.	5.7	6
87	SMART Research: Toward Interdisciplinary River Science in Europe. Frontiers in Environmental Science, 2020, 8, .	3.3	6
88	Metacommunity Structures of Macroinvertebrates and Diatoms in High Mountain Streams, Yunnan, China. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	5
89	Climate model variability leads to uncertain predictions of the future abundance of stream macroinvertebrates. Scientific Reports, 2020, 10, 2520.	3.3	5
90	Molecular phylogeny of Himalopsyche (Trichoptera, Rhyacophilidae). Systematic Entomology, 2019, 44, 973-984.	3.9	4

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91	Introduction to European rivers. , 2022, , 1-26.		3
92	Severity Multipliers as a Methodology to Explore Potential Effects of Climate Change on Stream Bioassessment Programs. Water (Switzerland), 2017, 9, 188.	2.7	2
93	Benthic Macroinvertebrates as Indicators for River Health in Changjiang Basin. Terrestrial Environmental Sciences, 2019, , 207-217.	0.5	2
94	In-depth approach to river management. Nature, 2019, 572, 32-32.	27.8	0
95	Disentangling the effect of climatic and hydrological predictor variables on benthic macroinvertebrate distributions from predictive models. Hydrobiologia, 2022, 849, 1021-1040.	2.0	0