Ralf B SchÃ¤fer

List of Publications by Year
in descending order

144 papers	8,907 citations	50276 46 h-index	46799 89 g-index
147 all docs	147 docs citations	147 times ranked	8344 citing authors

#	Article	IF	Citations
1	Organic chemicals jeopardize the health of freshwater ecosystems on the continental scale. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9549-9554.	7.1	604
2	Pesticides reduce regional biodiversity of stream invertebrates. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11039-11043.	7.1	578
3	Salinisation of rivers: An urgent ecological issue. Environmental Pollution, 2013, 173, 157-167.	7.5	535
4	Fungicides: An Overlooked Pesticide Class?. Environmental Science & Technology, 2019, 53, 3347-3365.	10.0	374
5	Impacts of multiple stressors on freshwater biota across spatial scales and ecosystems. Nature Ecology and Evolution, 2020, 4, 1060-1068.	7.8	336
6	Effects of pesticides on community structure and ecosystem functions in agricultural streams of three biogeographical regions in Europe. Science of the Total Environment, 2007, 382, 272-285.	8.0	330
7	Towards the review of the European Union Water Framework Directive: Recommendations for more efficient assessment and management of chemical contamination in European surface water resources. Science of the Total Environment, 2017, 576, 720-737.	8.0	255
8	Saving freshwater from salts. Science, 2016, 351, 914-916.	12.6	232
9	Thresholds for the Effects of Pesticides on Invertebrate Communities and Leaf Breakdown in Stream Ecosystems. Environmental Science & Technology, 2012, 46, 5134-5142.	10.0	220
10	Towards a unified study of multiple stressors: divisions and common goals across research disciplines. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200421.	2.6	191
11	The footprint of pesticide stress in communitiesâ€"Species traits reveal community effects of toxicants. Science of the Total Environment, 2008, 406, 484-490.	8.0	173
12	Predicting the synergy of multiple stress effects. Scientific Reports, 2016, 6, 32965.	3.3	168
13	Effects of Pesticides Monitored with Three Sampling Methods in 24 Sites on Macroinvertebrates and Microorganisms. Environmental Science & Technology, 2011, 45, 1665-1672.	10.0	163
14	Pesticide mixtures in streams of several European countries and the USA. Science of the Total Environment, 2016, 573, 680-689.	8.0	151
15	Advancing understanding and prediction in multiple stressor research through a mechanistic basis for null models. Global Change Biology, 2018, 24, 1817-1826.	9.5	124
16	Long-term stream invertebrate community alterations induced by the insecticide thiacloprid: Effect concentrations and recovery dynamics. Science of the Total Environment, 2008, 405, 96-108.	8.0	120
17	Pesticides are the dominant stressors for vulnerable insects in lowland streams. Water Research, 2021, 201, 117262.	11.3	118
18	A trait database of stream invertebrates for the ecological risk assessment of single and combined effects of salinity and pesticides in South-East Australia. Science of the Total Environment, 2011, 409, 2055-2063.	8.0	116

#	Article	IF	Citations
19	Effects of pesticide toxicity, salinity and other environmental variables on selected ecosystem functions in streams and the relevance for ecosystem services. Science of the Total Environment, 2012, 415, 69-78.	8.0	116
20	Review on the effects of toxicants on freshwater ecosystem functions. Environmental Pollution, 2013, 180, 324-329.	7.5	116
21	Large Scale Risks from Agricultural Pesticides in Small Streams. Environmental Science & Technology, 2017, 51, 7378-7385.	10.0	110
22	Salt in freshwaters: causes, effects and prospects - introduction to the theme issue. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180002.	4.0	110
23	Pesticide Risk Mitigation by Vegetated Treatment Systems: A Meta-Analysis. Journal of Environmental Quality, 2011, 40, 1068-1080.	2.0	107
24	Modeling global distribution of agricultural insecticides in surface waters. Environmental Pollution, 2015, 198, 54-60.	7.5	100
25	SPEAR indicates pesticide effects in streams â€" Comparative use of species- and family-level biomonitoring data. Environmental Pollution, 2009, 157, 1841-1848.	7.5	98
26	A global agenda for advancing freshwater biodiversity research. Ecology Letters, 2022, 25, 255-263.	6.4	95
27	Review on environmental alterations propagating from aquatic to terrestrial ecosystems. Science of the Total Environment, 2015, 538, 246-261.	8.0	88
28	Mapping human health risks from exposure to trace metal contamination of drinking water sources in Pakistan. Science of the Total Environment, 2015, 538, 306-316.	8.0	87
29	The definition of species richness used by species sensitivity distributions approximates observed effects of salinity on stream macroinvertebrates. Environmental Pollution, 2011, 159, 302-310.	7.5	85
30	Effects of fungicides on decomposer communities and litter decomposition in vineyard streams. Science of the Total Environment, 2015, 533, 40-48.	8.0	81
31	Future pesticide risk assessment: narrowing the gap between intention and reality. Environmental Sciences Europe, 2019, 31, .	5.5	80
32	Contribution of organic toxicants to multiple stress in river ecosystems. Freshwater Biology, 2016, 61, 2116-2128.	2.4	78
33	Calibration of the ChemcatcherÂ® passive sampler for monitoring selected polar and semi-polar pesticides in surface water. Environmental Pollution, 2008, 155, 52-60.	7.5	75
34	Specifics and challenges of assessing exposure and effects of pesticides in small water bodies. Hydrobiologia, 2017, 793, 213-224.	2.0	74
35	Occurrence and Toxicity of 331 Organic Pollutants in Large Rivers of North Germany over a Decade (1994 to 2004). Environmental Science & Technology, 2011, 45, 6167-6174.	10.0	73
36	Effects of repeated salt pulses on ecosystem structure and functions in a stream mesocosm. Science of the Total Environment, 2014, 476-477, 634-642.	8.0	72

#	Article	IF	Citations
37	Water quality indices across Europeâ€"a comparison of the good ecological status of five river basins. Journal of Environmental Monitoring, 2007, 9, 970.	2.1	71
38	How to Characterize Chemical Exposure to Predict Ecologic Effects on Aquatic Communities?. Environmental Science & Technology, 2013, 47, 7996-8004.	10.0	71
39	Water quality variables and pollution sources shaping stream macroinvertebrate communities. Science of the Total Environment, 2017, 587-588, 1-10.	8.0	71
40	Salinity impacts on river ecosystem processes: a critical mini-review. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180010.	4.0	68
41	Performance of the ChemcatcherÂ® passive sampler when used to monitor 10 polar and semi-polar pesticides in 16 Central European streams, and comparison with two other sampling methods. Water Research, 2008, 42, 2707-2717.	11.3	67
42	Assessing the Mixture Effects in <i>In Vitro</i> Bioassays of Chemicals Occurring in Small Agricultural Streams during Rain Events. Environmental Science & Technology, 2020, 54, 8280-8290.	10.0	66
43	Small streamsâ€"large concentrations? Pesticide monitoring in small agricultural streams in Germany during dry weather and rainfall. Water Research, 2021, 203, 117535.	11.3	66
44	Modelling survival: exposure pattern, species sensitivity and uncertainty. Scientific Reports, 2016, 6, 29178.	3.3	56
45	Aquatic passive sampling of a short-term thiacloprid pulse with the Chemcatcher: Impact of biofouling and use of a diffusion-limiting membrane on the sampling rate. Journal of Chromatography A, 2008, 1203, 1-6.	3.7	51
46	Effects of anthropogenic salinization on biological traits and community composition of stream macroinvertebrates. Science of the Total Environment, 2014, 468-469, 943-949.	8.0	50
47	Regulatory FOCUS Surface Water Models Fail to Predict Insecticide Concentrations in the Field. Environmental Science & Technology, 2012, 46, 8397-8404.	10.0	49
48	Contribution of waste water treatment plants to pesticide toxicity in agriculture catchments. Ecotoxicology and Environmental Safety, 2017, 145, 135-141.	6.0	49
49	Towards stressor-specific macroinvertebrate indices: Which traits and taxonomic groups are associated with vulnerable and tolerant taxa?. Science of the Total Environment, 2018, 619-620, 144-154.	8.0	49
50	Do predictions from Species Sensitivity Distributions match with field data?. Environmental Pollution, 2014, 189, 126-133.	7.5	47
51	Effects of salinity on leaf breakdown: Dryland salinity versus salinity from a coalmine. Aquatic Toxicology, 2016, 177, 425-432.	4.0	45
52	Calibration and field application of passive sampling for episodic exposure to polar organic pesticides in streams. Environmental Pollution, 2014, 194, 196-202.	7.5	43
53	Using silicone passive samplers to detect polycyclic aromatic hydrocarbons from wildfires in streams and potential acute effects for invertebrate communities. Water Research, 2010, 44, 4590-4600.	11.3	41
54	Using ecological production functions to link ecological processes to ecosystem services. Integrated Environmental Assessment and Management, 2017, 13, 52-61.	2.9	41

#	Article	IF	Citations
55	Relationship between agricultural pesticides and the diet of riparian spiders in the field. Environmental Sciences Europe, 2020, 32, .	5.5	41
56	Impacts of Pesticides on Freshwater Ecosystems. , 2011, , 111-137.		41
57	Comparison of dilution factors for German wastewater treatment plant effluents in receiving streams to the fixed dilution factor from chemical risk assessment. Science of the Total Environment, 2017, 598, 805-813.	8.0	40
58	Risk from pesticide mixtures â€“ The gap between risk assessment and reality. Science of the Total Environment, 2021, 796, 149017.	8.0	40
59	webchem: An <i>R</i> Package to Retrieve Chemical Information from the Web. Journal of Statistical Software, 2020, 93, .	3.7	40
60	Predicting current and future background ion concentrations in German surface water under climate change. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180004.	4.0	38
61	Physiological sensitivity of freshwater macroinvertebrates to heavy metals. Environmental Toxicology and Chemistry, 2012, 31, 1754-1764.	4.3	37
62	Aquatic prey subsidies to riparian spiders in a stream with different land use types. Limnologica, 2015, 51, 1-7.	1.5	37
63	Ecotoxicology is not normal. Environmental Science and Pollution Research, 2015, 22, 13990-13999.	5.3	36
64	Responses of freshwater macroinvertebrates to pesticides: insights from field studies. Current Opinion in Environmental Science and Health, 2019, 11, 1-7.	4.1	36
65	Revisiting global trends in freshwater insect biodiversity. Wiley Interdisciplinary Reviews: Water, 2021, 8, e1506.	6.5	34
66	No association between the use of Bti for mosquito control and the dynamics of non-target aquatic invertebrates in French coastal and continental wetlands. Science of the Total Environment, 2016, 553, 486-494.	8.0	33
67	Taxonomic and functional diversity of stream invertebrates along an environmental stress gradient. Ecological Indicators, 2017, 81, 235-242.	6.3	31
68	Risk assessment of salinity and turbidity in Victoria (Australia) to stream insects' community structure does not always protect functional traits. Science of the Total Environment, 2012, 415, 61-68.	8.0	30
69	Interactive effects of multiple stressors vary with consumer interactions, stressor dynamics and magnitude. Ecology Letters, 2022, 25, 1483-1496.	6.4	30
70	Do agricultural pesticides in streams influence riparian spiders?. Science of the Total Environment, 2019, 660, 126-135.	8.0	29
71	Limitations of traitâ€based approaches for stressor assessment: The case of freshwater invertebrates and climate drivers. Global Change Biology, 2020, 26, 364-379.	9.5	29
72	Is there an interaction of the effects of salinity and pesticides on the community structure of macroinvertebrates?. Science of the Total Environment, 2012, 437, 121-126.	8.0	28

#	Article	IF	Citations
73	Paradise lost? Pesticide pollution in a European region with considerable amount of traditional agriculture. Water Research, 2021, 188, 116528.	11.3	28
74	An automated, objective and open source tool for stream threshold selection and upstream riparian corridor delineation. Environmental Modelling and Software, 2015, 63, 240-250.	4.5	27
75	Qualifying the effects of single and multiple stressors on the food web structure of Dutch drainage ditches using a literature review and conceptual models. Science of the Total Environment, 2019, 684, 727-740.	8.0	27
76	Invasion impacts and dynamics of a Europeanâ€wide introduced species. Global Change Biology, 2022, 28, 4620-4632.	9.5	27
77	Two stressors and a community â€“ Effects of hydrological disturbance and a toxicant on freshwater zooplankton. Aquatic Toxicology, 2013, 127, 9-20.	4.0	26
78	Assessment of organochlorine pesticides in the Himalayan riverine ecosystems from Pakistan using passive sampling techniques. Environmental Science and Pollution Research, 2019, 26, 6023-6037.	5.3	26
79	Three reasons why the Water Framework Directive (WFD) fails to identify pesticide risks. Water Research, 2022, 208, 117848.	11.3	24
80	Determination of 10 particle-associated multiclass polar and semi-polar pesticides from small streams using accelerated solvent extraction. Chemosphere, 2008, 70, 1952-1960.	8.2	23
81	Evolutionary patterns and physicochemical properties explain macroinvertebrate sensitivity to heavy metals. Ecological Applications, 2016, 26, 1249-1259.	3.8	23
82	Modelling aquatic exposure and effects of insecticides â€" Application to south-eastern Australia. Science of the Total Environment, 2011, 409, 2807-2814.	8.0	22
83	Analysing chemical-induced changes in macroinvertebrate communities in aquatic mesocosm experiments: a comparison of methods. Ecotoxicology, 2015, 24, 760-769.	2.4	22
84	Fractionation of copper and uranium in organic and conventional vineyard soils and adjacent stream sediments studied by sequential extraction. Journal of Soils and Sediments, 2017, 17, 1092-1100.	3.0	22
85	Towards a general framework for the assessment of interactive effects of multiple stressors on aquatic ecosystems: Results from the Making Aquatic Ecosystems Great Again (MAEGA) workshop. Science of the Total Environment, 2019, 684, 722-726.	8.0	22
86	A similarityâ€index†based method to estimate chemical concentration limits protective for ecological communities. Environmental Toxicology and Chemistry, 2010, 29, 2123-2131.	4.3	21
87	Should ecologists prefer modelâ€•over distanceâ€based multivariate methods?. Ecology and Evolution, 2020, 10, 2417-2435.	1.9	21
88	An expert-based landscape permeability model for assessing the impact of agricultural management on amphibian migration. Basic and Applied Ecology, 2013, 14, 442-451.	2.7	20
89	Sublethal effects of imidacloprid on interactions in a tritrophic system of non-target species. Chemosphere, 2015, 132, 152-158.	8.2	20
90	An integrated database of stream macroinvertebrate traits for Australia: concept and application. Ecological Indicators, 2020, 114, 106280.	6.3	20

#	Article	IF	Citations
91	Large Scale Relationship between Aquatic Insect Traits and Climate. PLoS ONE, 2015, 10, e0130025.	2.5	20
92	Pesticide runoff from energy crops: A threat to aquatic invertebrates?. Science of the Total Environment, 2015, 537, 187-196.	8.0	18
93	Mechanistic Effect Modeling of Earthworms in the Context of Pesticide Risk Assessment: Synthesis of the FORESEE Workshop. Integrated Environmental Assessment and Management, 2021, 17, 352-363.	2.9	18
94	Perspectives from early career researchers on the publication process in ecology - a response to Statzner & Resh (2010). Freshwater Biology, 2011, 56, 2405-2412.	2.4	17
95	Does nutrient enrichment compensate fungicide effects on litter decomposition and decomposer communities in streams?. Aquatic Toxicology, 2016, 174, 169-178.	4.0	17
96	Tackling inconsistencies among freshwater invertebrate trait databases: harmonising across continents and aggregating taxonomic resolution. Freshwater Biology, 2022, 67, 275-291.	2.4	17
97	Contrasting effects of aquatic subsidies on a terrestrial trophic cascade. Biology Letters, 2017, 13, 20170129.	2.3	16
98	Assessment of polychlorinated biphenyls (PCBs) in the Himalayan Riverine Network of Azad Jammu and Kashmir. Chemosphere, 2020, 240, 124762.	8.2	16
99	Social-ecological interactions in the Draa River Basin, southern Morocco: Towards nature conservation and human well-being using the IPBES framework. Science of the Total Environment, 2021, 769, 144492.	8.0	16
100	Standartox: Standardizing Toxicity Data. Data, 2020, 5, 46.	2.3	15
101	Sampling rates for passive samplers exposed to a field-relevant peak of 42 organic pesticides. Science of the Total Environment, 2020, 740, 140376.	8.0	15
102	Organic matter breakdown in streams in a region of contrasting anthropogenic land use. Science of the Total Environment, 2015, 527-528, 179-184.	8.0	14
103	Invertebrate turnover along gradients of anthropogenic salinisation in rivers of two German regions. Science of the Total Environment, 2021, 753, 141986.	8.0	12
104	Biodiversity, ecosystem functions and services in environmental risk assessment: Introduction to the special issue. Science of the Total Environment, 2012, 415, 1-2.	8.0	11
105	Maximising the clustering coefficient of networks and the effects on habitat network robustness. PLoS ONE, 2020, 15, e0240940.	2.5	11
106	Effects of hedgerows and riparian margins on aerial web-building spiders in cereal fields. Journal of Arachnology, 2015, 43, 400-405.	0.5	10
107	Looking beneath the surface: using hydrogeology and traits to explain flow variability effects on stream macroinvertebrates. Ecohydrology, 2016, 9, 1480-1495.	2.4	10
108	Regional-scale lateral carbon transport and CO₂ evasion in temperate stream catchments. Biogeosciences, 2017, 14, 5003-5014.	3.3	10

#	Article	IF	Citations
109	<i>In Response</i>: Why we need landscape ecotoxicology and how it could be advancedâ€"An academic perspective. Environmental Toxicology and Chemistry, 2014, 33, 1193-1194.	4.3	9
110	Resilience in ecotoxicology: Toward a multiple equilibrium concept. Environmental Toxicology and Chemistry, 2017, 36, 2574-2580.	4.3	9
111	Mini-review of process-based food web models and their application in aquatic-terrestrial meta-ecosystems. Ecological Modelling, 2021, 458, 109710.	2.5	9
112	Risk assessment of episodic exposures to chemicals should consider both the physiological and the ecological sensitivities of species. Science of the Total Environment, 2012, 441, 213-219.	8.0	8
113	How does habitat connectivity influence the colonization success of a hemimetabolous aquatic insect? - A modeling approach. Ecological Modelling, 2020, 416, 108909.	2.5	8
114	Potential propagation of agricultural pesticide exposure and effects to upstream sections in a biosphere reserve. Science of the Total Environment, 2022, 836, 155688.	8.0	8
115	To the Editor. Environmental Toxicology and Chemistry, 2013, 32, 734-735.	4.3	7
116	Meta-analysis on the responses of traits of different taxonomic groups to global and local stressors. Acta Oecologica, 2015, 69, 65-70.	1.1	7
117	Effect of Small Impoundments on Leaf Litter Decomposition in Streams. River Research and Applications, 2016, 32, 907-913.	1.7	7
118	Evaluating the biological validity of European river typology systems with least disturbed benthic macroinvertebrate communities. Science of the Total Environment, 2022, 842, 156689.	8.0	7
119	Does the loss of climate sensitive detritivore species alter leaf decomposition?. Aquatic Sciences, 2017, 79, 869-879.	1.5	6
120	Assessing recovery of stream insects from pesticides using a two-patch metapopulation model. Science of the Total Environment, 2017, 609, 788-798.	8.0	6
121	Effects of a Systemic Pesticide Along an Aquatic Tri-Trophic Food Chain. Bulletin of Environmental Contamination and Toxicology, 2019, 103, 507-514.	2.7	6
122	Preparing GIS data for analysis of stream monitoring data: The R package openSTARS. PLoS ONE, 2020, 15, e0239237.	2.5	6
123	Indicators for assessing the robustness of metapopulations against habitat loss. Ecological Indicators, 2021, 121, 106809.	6.3	6
124	Pesticide effects on macroinvertebrates and leaf litter decomposition in areas with traditional agriculture. Science of the Total Environment, 2022, 828, 154549.	8.0	6
125	Environmental stressors can enhance the development of community tolerance to a toxicant. Ecotoxicology, 2014, 23, 1690-1700.	2.4	5
126	Species at Risk (SPEAR) Biomonitoring Indicators. , 2013, , 1063-1072.		5

#	Article	IF	Citations
127	Similar recovery time of microbial functions from fungicide stress across biogeographical regions. Scientific Reports, 2018, 8, 17021.	3.3	4
128	Optimisation Model of Dispersal Simulations on a Dendritic Habitat Network. Scientific Reports, 2019, 9, 8202.	3.3	4
129	Methane-Derived Carbon in the Benthic Food Web in Stream Impoundments. PLoS ONE, 2014, 9, e111392.	2.5	4
130	How Toxicants Influence Organic Matter Decomposition in Streams. , 2021, , 379-410.		3
131	Environmental Change Threatens Freshwater Insect Communities in Northwest Africa: A Meta-Analysis. Frontiers in Environmental Science, 2021, 9, .	3.3	3
132	Spatiotemporal dynamics drive synergism of land use and climatic extreme events in insect meta-populations. Science of the Total Environment, 2022, 814, 152602.	8.0	3
133	Response to Comment on â€œRegulatory FOCUS Surface Water Models Fail to Predict Insecticide Concentrations in the Fieldâ€• Environmental Science & Technology, 2013, 47, 1179-1180.	10.0	2
134	Response to Comment on â€œRegulatory FOCUS Surface Water Models Fail to Predict Insecticide Concentrations in the Fieldâ€• Environmental Science & Technology, 2013, 47, 3017-3018.	10.0	2
135	Monitoring Programmes, Multiple Stress Analysis and Decision Support for River Basin Management. Handbook of Environmental Chemistry, 2014, , 151-182.	0.4	2
136	Status and Causal Pathway Assessments Supporting River Basin Management. Handbook of Environmental Chemistry, 2014, , 53-149.	0.4	2
137	The diversity of decay. ELife, 2020, 9, .	6.0	2
138	The German postgraduate degree program in ecotoxicology (SETAC GLB and GDCh): a success story. Environmental Sciences Europe, 2016, 28, 19.	5.5	1
139	Ecotoxicology. , 2018, , 225-239.		1
140	Evolutionary patterns and physicochemical properties explain macroinvertebrate sensitivity to heavy metals. , 0, , .		1
141	16th SETAC GLB (Society of Environmental Toxicology and Chemistry German LanguageBranch) Annual meeting held under the main theme â€œEcoTOXICOlogy andEnvironmental CHEMISTRY: crossing bordersâ€• from 18th to 20th September2011 at Landau. Environmental Sciences Europe, 2012, 24, .	5.5	0
142	Reproducible, Automated and Objective Stream Threshold Selection and Upstream Riparian Corridor Delineation from Digital Elevation Models. , 2014, , .		0
143	Preface to the special section â€œBiohydrology â€•Water for lifeâ€• Ecohydrology, 2015, 8, 353-354.	2.4	0
144	Statistical hypothesis testingâ€"To transform or not to transform?. Integrated Environmental Assessment and Management, 2016, 12, 398-400.	2.9	0