Eric Chauvet

List of Publications by Year
in descending order

121 papers	10,586 citations	34016 52 h-index	34900 98 g-index
132 all docs	132 docs citations	132 times ranked	7086 citing authors

#	Article	IF	Citations
1	Consequences of biodiversity loss for litter decomposition across biomes. Nature, 2014, 509, 218-221.	13.7	600
2	Continental-Scale Effects of Nutrient Pollution on Stream Ecosystem Functioning. Science, 2012, 336, 1438-1440.	6.0	520
3	Importance of Stream Microfungi in Controlling Breakdown Rates of Leaf Litter. Ecology, 1994, 75, 1807-1817.	1.5	505
4	A Perspective on Leaf Litter Breakdown in Streams. Oikos, 1999, 85, 377.	1.2	501
5	A CASE FOR USING LITTER BREAKDOWN TO ASSESS FUNCTIONAL STREAM INTEGRITY. , 2002, 12, 498-510.		433
6	Ergosterol-to-Biomass Conversion Factors for Aquatic Hyphomycetes. Applied and Environmental Microbiology, 1993, 59, 502-507.	1.4	397
7	Regulation of Leaf Breakdown by Fungi in Streams: Influences of Water Chemistry. Ecology, 1995, 76, 1433-1445.	1.5	345
8	The Role of Biodiversity in the Functioning of Freshwater and Marine Benthic Ecosystems. BioScience, 2004, 54, 767.	2.2	296
9	A global experiment suggests climate warming will not accelerate litter decomposition in streams but might reduce carbon sequestration. Ecology Letters, 2011, 14, 289-294.	3.0	256
10	Magnitude and variability of process rates in fungal diversity-litter decomposition relationships. Ecology Letters, 2005, 8, 1129-1137.	3.0	235
11	Impacts of stream acidification on litter breakdown: implications for assessing ecosystem functioning. Journal of Applied Ecology, 2004, 41, 365-378.	1.9	222
12	Bacteria, Fungi and the Breakdown of Leaf Litter in a Large River. Oikos, 1995, 74, 93.	1.2	217
13	Synergistic effects of water temperature and dissolved nutrients on litter decomposition and associated fungi. Global Change Biology, 2011, 17, 551-564.	4.2	208
14	A metaâ€analysis of the effects of nutrient enrichment on litter decomposition in streams. Biological Reviews, 2015, 90, 669-688.	4.7	208
15	Intraspecific variability in leaf traits strongly affects alder leaf decomposition in a stream. Basic and Applied Ecology, 2008, 9, 598-605.	1.2	205
16	DECOMPOSITION OF DIVERSE LITTER MIXTURES IN STREAMS. Ecology, 2007, 88, 219-227.	1.5	183
17	Riparian plant species loss alters trophic dynamics in detritus-based stream ecosystems. Oecologia, 2005, 146, 432-442.	0.9	175
18	Benthic algae stimulate leaf litter decomposition in detritusâ€based headwater streams: a case of aquatic priming effect?. Ecology, 2013, 94, 1604-1613.	1.5	165

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19	Temperature oscillation coupled with fungal community shifts can modulate warming effects on litter decomposition. Ecology, 2009, 90, 122-131.	1.5	162
20	Global distribution of a key trophic guild contrasts with common latitudinal diversity patterns. Ecology, 2011, 92, 1839-1848.	1.5	162
21	Breakdown of leaf litter in a neotropical stream. Journal of the North American Benthological Society, 2002, 21, 384-396.	3.0	156
22	Global patterns and drivers of ecosystem functioning in rivers and riparian zones. Science Advances, 2019, 5, eaav0486.	4.7	133
23	Stable successional patterns of aquatic hyphomycetes on leaves decaying in a summer cool stream. Mycological Research, 1993, 97, 163-172.	2.5	118
24	Temperature and Sporulation of Aquatic Hyphomycetes. Applied and Environmental Microbiology, 1998, 64, 1522-1525.	1.4	117
25	Leaf litter breakdown budgets in streams of various trophic status: effects of dissolved inorganic nutrients on microorganisms and invertebrates. Freshwater Biology, 2007, 52, 1322-1335.	1.2	116
26	Global patterns of stream detritivore distribution: implications for biodiversity loss in changing climates. Global Ecology and Biogeography, 2012, 21, 134-141.	2.7	114
27	Microbial dynamics associated with leaves decomposing in the mainstem and floodplain pond of a large river. Aquatic Microbial Ecology, 2002, 28, 25-36.	0.9	113
28	Effects of intense agricultural practices on heterotrophic processes in streams. Environmental Pollution, 2009, 157, 1011-1018.	3.7	108
29	Changes in the chemical composition of alder, poplar and willow leaves during decomposition in a river. Hydrobiologia, 1987, 148, 35-44.	1.0	107
30	Assessment of functional integrity of eutrophic streams using litter breakdown and benthic macroinvertebrates. Archiv FÃ¼r Hydrobiologie, 2006, 165, 105-126.	1.1	105
31	Out of the rivers: are some aquatic hyphomycetes plant endophytes?. New Phytologist, 2008, 178, 3-7.	3.5	90
32	Future increase in temperature more than decrease in litter quality can affect microbial litter decomposition in streams. Oecologia, 2011, 167, 279-291.	0.9	89
33	Beyond the water column: aquatic hyphomycetes outside their preferred habitat. Fungal Ecology, 2016, 19, 112-127.	0.7	87
34	Stream ecosystems respond to riparian invasion by Japanese knotweed (<i>Fallopia japonica</i>). Canadian Journal of Fisheries and Aquatic Sciences, 2007, 64, 1273-1283.	0.7	86
35	Early stages of leaf decomposition are mediated by aquatic fungi in the hyporheic zone of woodland streams. Freshwater Biology, 2010, 55, 2541-2556.	1.2	86
36	Biotic and abiotic variables influencing plant litter breakdown in streams: a global study. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152664.	1.2	86

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37	Competitive Interaction between Two Aquatic Hyphomycete Species and Increase in Leaf Litter Breakdown. Microbial Ecology, 2004, 48, 439-446.	1.4	83
38	Diversity and functions of leafâ€decaying fungi in humanâ€altered streams. Freshwater Biology, 2008, 53, 1658-1672.	1.2	81
39	The role of organisms in hyporheic processes: gaps in current knowledge, needs for future research and applications. Annales De Limnologie, 2012, 48, 253-266.	0.6	81
40	Stream Ecosystem Functioning in an Agricultural Landscape. Advances in Ecological Research, 2011, , 211-276.	1.4	78
41	Litter diversity, fungal decomposers and litter decomposition under simulated stream intermittency. Functional Ecology, 2011, 25, 1269-1277.	1.7	72
42	Breakdown of wood in the AgÃ¼era stream. Freshwater Biology, 2002, 47, 2205-2215.	1.2	71
43	Growth and production of aquatic hyphomycetes in decomposing leaf litter. Limnology and Oceanography, 1997, 42, 496-505.	1.6	70
44	Effect of Culture Conditions on Ergosterol as an Indicator of Biomass in the Aquatic Hyphomycetes. Applied and Environmental Microbiology, 2001, 67, 2051-2055.	1.4	66
45	Effect of cerium on structure modifications of a hybrid solâ€"gel coating, its mechanical properties and anti-corrosion behavior. Materials Research Bulletin, 2012, 47, 3170-3176.	2.7	66
46	Trophic complexity enhances ecosystem functioning in an aquatic detritusâ€based model system. Journal of Animal Ecology, 2013, 82, 1042-1051.	1.3	65
47	Effects of burial on leaf litter quality, microbial conditioning and palatability to three shredder taxa. Freshwater Biology, 2012, 57, 1017-1030.	1.2	64
48	Comparison of ATP and Ergosterol as Indicators of Fungal Biomass Associated with Decomposing Leaves in Streams. Applied and Environmental Microbiology, 1993, 59, 3367-3372.	1.4	64
49	Influence of conidial traits and leaf structure on attachment success of aquatic hyphomycetes on leaf litter. Mycologia, 2007, 99, 24-32.	0.8	62
50	Litter Decomposition as an Indicator of Stream Ecosystem Functioning at Local-to-Continental Scales. Advances in Ecological Research, 2016, 55, 99-182.	1.4	60
51	Vegetation diversity increases species richness of leaf-decaying fungal communities in woodland streams. Archiv FÃ¼r Hydrobiologie, 2005, 164, 217-235.	1.1	59
52	Elevated Aluminium Concentration in Acidified Headwater Streams Lowers Aquatic Hyphomycete Diversity and Impairs Leaf-Litter Breakdown. Microbial Ecology, 2008, 56, 260-269.	1.4	55
53	Leaf diversity influences inâ€stream litter decomposition through effects on shredders. Freshwater Biology, 2009, 54, 1671-1682.	1.2	55
54	Interactions between fauna and sediment control the breakdown of plant matter in river sediments. Freshwater Biology, 2010, 55, 753-766.	1.2	55

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55	Stoichiometric imbalances between detritus and detritivores are related to shifts in ecosystem functioning. Oikos, 2016, 125, 861-871.	1.2	54
56	Aquatic hyphomycetes and litter decomposition in tropical â€“ subtropical low order streams. Fungal Ecology, 2016, 19, 182-189.	0.7	54
57	Effects of stream acidification on fungal biomass in decaying beech leaves and leaf palatability. Water Research, 2003, 37, 533-538.	5.3	53
58	Riparian plant litter quality increases with latitude. Scientific Reports, 2017, 7, 10562.	1.6	53
59	Biodiversity of leaf litter fungi in streams along a latitudinal gradient. Science of the Total Environment, 2019, 661, 306-315.	3.9	53
60	A fungal endophyte of black spruce (Picea mariana) needles is also an aquatic hyphomycete. Molecular Ecology, 2006, 15, 1955-1962.	2.0	51
61	Elemental composition and degree of homeostasis of fungi: are aquatic hyphomycetes more like metazoans, bacteria or plants?. Fungal Ecology, 2013, 6, 453-457.	0.7	50
62	Effects of experimental warming, litter species, and presence of macroinvertebrates on litter decomposition and associated decomposers in a temperate mountain stream. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 206-216.	0.7	49
63	The impact of eucalypt on the leaf-associated aquatic hyphomycetes in Spanish streams. Canadian Journal of Botany, 1997, 75, 880-887.	1.2	47
64	Waterâ€"Sediment Exchanges Control Microbial Processes Associated with Leaf Litter Degradation in the Hyporheic Zone: a Microcosm Study. Microbial Ecology, 2011, 61, 968-979.	1.4	47
65	Alteration of leaf decomposition in copperâ€contaminated freshwater mesocosms. Environmental Toxicology and Chemistry, 2008, 27, 637-644.	2.2	46
66	Relative influence of shredders and fungi on leaf litter decomposition along a river altitudinal gradient. Hydrobiologia, 2014, 721, 239-250.	1.0	46
67	Lateral Interactions in a Fluvial Landscape: The River Garonne, France. Journal of the North American Benthological Society, 1989, 8, 9-17.	3.0	45
68	Diversity patterns of leaf-associated aquatic hyphomycetes along a broad latitudinal gradient. Fungal Ecology, 2013, 6, 439-448.	0.7	45
69	Aquatic Hyphomycete Distribution in South-Western France. Journal of Biogeography, 1991, 18, 699.	1.4	44
70	Topâ€down and bottomâ€up control of litter decomposers in streams. Freshwater Biology, 2014, 59, 2172-2182.	1.2	39
71	Influence of conidial traits and leaf structure on attachment success of aquatic hyphomycetes on leaf litter. Mycologia, 2007, 99, 24-32.	0.8	36
72	Sedimentary context controls the influence of ecosystem engineering by bioturbators on microbial processes in river sediments. Oikos, 2012, 121, 1134-1144.	1.2	36

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73	Effects of radionuclide contamination on leaf litter decomposition in the Chernobyl exclusion zone. Science of the Total Environment, 2016, 562, 596-603.	3.9	36
74	Litter Quality Modulates Effects of Dissolved Nitrogen on Leaf Decomposition by Stream Microbial Communities. Microbial Ecology, 2019, 77, 959-966.	1.4	36
75	Leaf breakdown along an altitudinal stream gradient. Fundamental and Applied Limnology, 1998, 141, 167-179.	0.4	35
76	Fungi are involved in the effects of litter mixtures on consumption by shredders. Freshwater Biology, 2012, 57, 1667-1677.	1.2	33
77	Impacts of detritivore diversity loss on instream decomposition are greatest in the tropics. Nature Communications, 2021, 12, 3700.	5.8	33
78	Fungal alteration of the elemental composition of leaf litter affects shredder feeding activity. Freshwater Biology, 2015, 60, 1755-1771.	1.2	32
79	Toxicity of CeO₂nanoparticles on a freshwater experimental trophic chain: A study in environmentally relevant conditions through the use of mesocosms. Nanotoxicology, 2016, 10, 1-11.	1.6	32
80	Response of aquatic hyphomycete communities to enhanced stream retention in areas impacted by commercial forestry. Freshwater Biology, 2002, 47, 313-323.	1.2	31
81	Effect of acidification on leaf litter decomposition in benthic and hyporheic zones of woodland streams. Water Research, 2012, 46, 6430-6444.	5.3	31
82	Impact of CeO2nanoparticles on the functions of freshwater ecosystems: a microcosm study. Environmental Science: Nano, 2016, 3, 830-838.	2.2	30
83	Litter identity mediates predator impacts on the functioning of an aquatic detritus-based food web. Oecologia, 2014, 176, 225-235.	0.9	29
84	The Biota of Intermittent Rivers and Ephemeral Streams: Prokaryotes, Fungi, and Protozoans. , 2017, , 161-188.		28
85	Latitude dictates plant diversity effects on instream decomposition. Science Advances, 2021, 7, .	4.7	27
86	Repeatable interâ€individual variation in the thermal sensitivity of metabolic rate. Oikos, 2019, 128, 1633-1640.	1.2	24
87	Lignin Degradation and Humus Formation in Alluvial Soils and Sediments. Applied and Environmental Microbiology, 1989, 55, 922-926.	1.4	24
88	Aquatic Hyphomycete Species Are Screened by the Hyporheic Zone of Woodland Streams. Applied and Environmental Microbiology, 2014, 80, 1949-1960.	1.4	22
89	Leafâ€associated fungal diversity in acidified streams: insights from combining traditional and molecular approaches. Environmental Microbiology, 2014, 16, 2145-2156.	1.8	21
90	Dam-associated multiple-stressor impacts on fungal biomass and richness reveal the initial signs of ecosystem functioning impairment. Ecological Indicators, 2016, 60, 1077-1090.	2.6	21

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91	Hydrological contingency: drying history affects aquatic microbial decomposition. Aquatic Sciences, 2018, 80, 1.	0.6	20
92	Latitudinal gradient of nestedness and its potential drivers in stream detritivores. Ecography, 2015, 38, 949-955.	2.1	19
93	Changes in dominance among species in aquatic hyphomycete assemblages do not affect litter decomposition rates. Aquatic Microbial Ecology, 2012, 66, 1-11.	0.9	19
94	Genetic diversity in Tetrachaetum elegans, a mitosporic aquatic fungus. Molecular Ecology, 2004, 13, 1679-1692.	2.0	18
95	Contribution of Chemoautotrophic Production to Freshwater Macroinvertebrates in a Headwater Stream Using Multiple Stable Isotopes. International Review of Hydrobiology, 2006, 91, 501-508.	0.5	15
96	Relevance of large litter bag burial for the study of leaf breakdown in the hyporheic zone. Hydrobiologia, 2010, 641, 203-214.	1.0	15
97	Fine sediment on leaves: shredder removal of sediment does not enhance fungal colonisation. Aquatic Sciences, 2012, 74, 527-538.	0.6	14
98	Litter breakdown for ecosystem integrity assessment also applies to streams affected by pesticides. Hydrobiologia, 2016, 773, 87-102.	1.0	14
99	Variable temperature effects between heterotrophic stream processes and organisms. Freshwater Biology, 2020, 65, 1543-1554.	1.2	14
100	Seasonal variations overwhelm temperature effects on microbial processes in headwater streams: insights from a temperate thermal spring. Aquatic Sciences, 2019, 81, 1.	0.6	13
101	Seasonal dynamics of benthic detritus and associated macroinvertebrate communities in a neotropical stream. Fundamental and Applied Limnology, 2008, 171, 323-333.	0.4	12
102	Two microcrustaceans affect microbial and macroinvertebrateâ€driven litter breakdown. Freshwater Biology, 2017, 62, 530-543.	1.2	12
103	Phenotypic determinants of interâ€individual variability of litter consumption rate in a detritivore population. Oikos, 2018, 127, 1670-1678.	1.2	12
104	Temperature and nutrient effects on the relative importance of brown and green pathways for stream ecosystem functioning: A mesocosm approach. Freshwater Biology, 2020, 65, 1239-1255.	1.2	12
105	Coarse particulate organic matter in the interstitial zone of three French headwater streams. Annales De Limnologie, 2012, 48, 303-313.	0.6	11
106	Scale dependency in the hydromorphological control of a stream ecosystem functioning. Water Research, 2017, 115, 60-73.	5.3	11
107	Degradation of softwood [14C lignin] lignocelluloses and its relation to the formation of humic substances in river and pond environments. Hydrobiologia, 1988, 159, 169-176.	1.0	8
108	Dynamics of seston constituents in the Arïï¿½ge and Garonne rivers (France). Hydrobiologia, 1990, 192, 183-190.	1.0	8

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109	Biodiversity and litter decomposition: a case study in a Mediterranean stream. Freshwater Science, 2015, 34, 423-430.	0.9	7
110	Rapid characterization of aquatic hyphomycetes by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Mycologia, 2019, 111, 177-189.	0.8	7
111	Influence d'une rÃ©duction de dÃ©bit sur un torrent de montagne : l'Aston (AriÃ¨ge). Annales De Limnologie, 1983, 19, 45-49.	0.6	6
112	Leaf litter degradation in highly turbid transitional waters: preliminary results from litter-bag experiments in the Gironde Estuary. Geodinamica Acta, 2015, 27, 60-66.	2.2	5
113	Leaf litter decomposition in Guinean savannah streams. Inland Waters, 2018, 8, 413-421.	1.1	5
114	Nutritive value and physical and chemical deterrents of forage grass litter explain feeding performances of two soil macrodetritivores. Applied Soil Ecology, 2019, 133, 81-88.	2.1	5
115	Tropical shift in decomposersâ€™ relative contribution to leaf litter breakdown in two Guinean streams. Biotropica, 2017, 49, 439-442.	0.8	3
116	Inoculation of Leaf Litter with Aquatic Hyphomycetes. , 2020, , 527-531.		3
117	The combination of chemical, structural, and functional indicators to evaluate the anthropogenic impacts on agricultural stream ecosystems. Environmental Science and Pollution Research, 2022, 29, 29296-29313.	2.7	3
118	The importance of intraspecific variation in litter consumption rate of aquatic and terrestrial macro-detritivores. Basic and Applied Ecology, 2022, , .	1.2	3
119	Consumer responses to resource patch size and architecture: leaf packs in streams. Fundamental and Applied Limnology, 2019, 192, 255-261.	0.4	2
120	Energetic mismatch induced by warming decreases leaf litter decomposition by aquatic detritivores. Journal of Animal Ecology, 2022, 91, 1975-1987.	1.3	1
121	Production and decomposition of aquatic macrophytes in the River Garonne. Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology, 1994, 25, 2305-2308.	0.1	0