## Rafael Marcé

## List of Publications by Year in descending order

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110 papers 4,611 citations

34 h-index 64 g-index

125 all docs

125
docs citations

125 times ranked 6584 citing authors

#	Article	IF	CITATIONS
1	Assessing the impacts of 1.5 °C global warming – simulation protocol of the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP2b). Geoscientific Model Development, 2017, 10, 4321-4345.	1.3	410
2	Organic carbon decomposition rates controlled by water retention time across inland waters. Nature Geoscience, 2016, 9, 501-504.	5.4	292
3	Exploring the links between antibiotic occurrence, antibiotic resistance, and bacterial communities in water supply reservoirs. Science of the Total Environment, 2013, 456-457, 161-170.	3.9	288
4	Assessment of the water supply:demand ratios in a Mediterranean basin under different global change scenarios and mitigation alternatives. Science of the Total Environment, 2014, 470-471, 567-577.	3.9	168
5	Temperature Effects Explain Continental Scale Distribution of Cyanobacterial Toxins. Toxins, 2018, 10, 156.	1.5	159
6	Driving factors of the phytoplankton functional groups in a deep Mediterranean reservoir. Water Research, 2010, 44, 3345-3354.	5.3	157
7	Carbonate weathering as a driver of CO2 supersaturation in lakes. Nature Geoscience, 2015, 8, 107-111.	5.4	138
8	Occurrence and modeling of pharmaceuticals on a sewage-impacted Mediterranean river and their dynamics under different hydrological conditions. Science of the Total Environment, 2012, 440, 3-13.	3.9	124
9	Phenological shifts in lake stratification under climate change. Nature Communications, 2021, 12, 2318.	5.8	118
10	Automatic High Frequency Monitoring for Improved Lake and Reservoir Management. Environmental Science & Environmental Science	4.6	104
11	Effects of human-driven water stress on river ecosystems: a meta-analysis. Scientific Reports, 2018, 8, 11462.	1.6	104
12	Runoff Trends Driven by Climate and Afforestation in a Pyrenean Basin. Land Degradation and Development, 2016, 27, 823-838.	1.8	94
13	Emissions from dry inland waters are a blind spot in the global carbon cycle. Earth-Science Reviews, 2019, 188, 240-248.	4.0	93
14	Combined scenarios of chemical and ecological quality under water scarcity in Mediterranean rivers. TrAC - Trends in Analytical Chemistry, 2011, 30, 1269-1278.	5.8	91
15	A tale of pipes and reactors: Controls on the inâ€stream dynamics of dissolved organic matter in rivers. Limnology and Oceanography, 2017, 62, S85.	1.6	82
16	Global CO2 emissions from dry inland waters share common drivers across ecosystems. Nature Communications, 2020, 11, 2126.	5.8	73
17	When Water Vanishes: Magnitude and Regulation of Carbon Dioxide Emissions from Dry Temporary Streams. Ecosystems, 2016, 19, 710-723.	1.6	70
18	Global carbon budget of reservoirs is overturned by the quantification of drawdown areas. Nature Geoscience, 2021, 14, 402-408.	5.4	70

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19	Attribution of global lake systems change to anthropogenic forcing. Nature Geoscience, 2021, 14, 849-854.	5.4	70
20	Carbon dioxide emissions from dry watercourses. Inland Waters, 2014, 4, 377-382.	1.1	69
21	El Ni $ ilde{A}\pm o$ Southern Oscillation and climate trends impact reservoir water quality. Global Change Biology, 2010, 16, 2857-2865.	4.2	63
22	Abundance of antibiotic resistance genes and bacterial community composition in wild freshwater fish species. Chemosphere, 2018, 196, 115-119.	4.2	59
23	Hot spots for carbon emissions from Mediterranean fluvial networks during summer drought. Biogeochemistry, 2015, 125, 409-426.	1.7	58
24	A conceptual framework for understanding the biogeochemistry of dry riverbeds through the lens of soil science. Earth-Science Reviews, 2019, 188, 441-453.	4.0	54
25	Biodegradation kinetics of dissolved organic matter chromatographic fractions in an intermittent river. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 131-144.	1.3	50
26	Sediment Respiration Pulses in Intermittent Rivers and Ephemeral Streams. Global Biogeochemical Cycles, 2019, 33, 1251-1263.	1.9	48
27	A neuroâ€fuzzy modeling tool to estimate fluvial nutrient loads in watersheds under timeâ€varying human impact. Limnology and Oceanography: Methods, 2004, 2, 342-355.	1.0	46
28	Contribution of Hydrologic Opportunity and Biogeochemical Reactivity to the Variability of Nutrient Retention in River Networks. Global Biogeochemical Cycles, 2018, 32, 376-388.	1.9	44
29	Interaction between wind-induced seiches and convective cooling governs algal distribution in a canyon-shaped reservoir. Freshwater Biology, 2007, 52, 1336-1352.	1.2	40
30	Examining the Demand for Ecosystem Services: The Value of Stream Restoration for Drinking Water Treatment Managers in the Llobregat River, Spain. Ecological Economics, 2013, 90, 196-205.	2.9	39
31	A framework for ensemble modelling of climate change impacts on lakes worldwide: the ISIMIP Lake Sector. Geoscientific Model Development, 2022, 15, 4597-4623.	1.3	37
32	Drought-induced discontinuities in the source and degradation of dissolved organic matter in a Mediterranean river. Biogeochemistry, 2016, 127, 125-139.	1.7	36
33	Technical note: CO <sub>2</sub> is not like CH <sub>4</sub> – limits of and corrections to the headspace method to analyse <i>p</i> CO <sub>2</sub> in fresh water. Biogeosciences. 2021. 18. 1619-1627.	1.3	36
34	Tailoring dam structures to water quality predictions in new reservoir projects: Assisting decision-making using numerical modeling. Journal of Environmental Management, 2010, 91, 1255-1267.	3.8	35
35	Analysing the effect of global change on the historical trends of water resources in the headwaters of the Llobregat and Ter river basins (Catalonia, Spain). Physics and Chemistry of the Earth, 2011, 36, 655-661.	1.2	35
36	A calibration strategy for dynamic succession models including several phytoplankton groups. Environmental Modelling and Software, 2011, 26, 697-710.	1.9	35

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37	Dry habitats sustain high CO2 emissions from temporary ponds across seasons. Scientific Reports, 2018, 8, 3015.	1.6	35
38	Hydraulic Management Drives Heat Budgets and Temperature Trends in a Mediterranean Reservoir. International Review of Hydrobiology, 2008, 93, 131-147.	0.5	34
39	The combined impact of land use change and aquaculture on sediment and water quality in oligotrophic Lake Rupanco (North Patagonia, Chile, 40.8°S). Journal of Environmental Management, 2013, 128, 283-291.	3.8	34
40	Modelling the emerging pollutant diclofenac with the GREAT-ER model: Application to the Llobregat River Basin. Journal of Hazardous Materials, 2013, 263, 207-213.	6.5	34
41	Influence of seasonal freshwater streamflow regimes on phytoplankton blooms in a Patagonian fjord. New Zealand Journal of Marine and Freshwater Research, 2017, 51, 304-315.	0.8	34
42	Linking in-stream nutrient flux to land use and inter-annual hydrological variability at the watershed scale. Science of the Total Environment, 2012, 440, 72-81.	3.9	32
43	Emission factor estimation of ca. 160 emerging organic microcontaminants by inverse modeling in a Mediterranean river basin (Llobregat, NE Spain). Science of the Total Environment, 2015, 520, 241-252.	3.9	31
44	Global Heat Uptake by Inland Waters. Geophysical Research Letters, 2020, 47, e2020GL087867.	1.5	31
45	The relevance of environment vs. composition on dissolved organic matter degradation in freshwaters. Limnology and Oceanography, 2021, 66, 306-320.	1.6	31
46	River pollution by priority chemical substances under the Water Framework Directive: A provisional pan-European assessment. Science of the Total Environment, 2019, 662, 434-445.	3.9	30
47	A European Multi Lake Survey dataset of environmental variables, phytoplankton pigments and cyanotoxins. Scientific Data, 2018, 5, 180226.	2.4	30
48	The Role of Allochthonous Inputs of Dissolved Organic Carbon on the Hypolimnetic Oxygen Content of Reservoirs. Ecosystems, 2008, 11, 1035-1053.	1.6	29
49	Delineating the Continuum of Dissolved Organic Matter in Temperate River Networks. Global Biogeochemical Cycles, 2020, 34, e2019GB006495.	1.9	29
50	Flow regulation increases foodâ€chain length through omnivory mechanisms in a Mediterranean river network. Freshwater Biology, 2016, 61, 1536-1549.	1.2	28
51	Hidden treasures: Human-made aquatic ecosystems harbour unexplored opportunities. Ambio, 2020, 49, 531-540.	2.8	28
52	Influence of hydrological regime of an Andean river on salinity, temperature and oxygen in a Patagonia fjord, Chile. New Zealand Journal of Marine and Freshwater Research, 2013, 47, 515-528.	0.8	27
53	Global increase in methane production under future warming of lake bottom waters. Global Change Biology, 2022, 28, 5427-5440.	4.2	27
54	Modeling nutrient in-stream processes at the watershed scale using Nutrient Spiralling metrics. Hydrology and Earth System Sciences, 2009, 13, 953-967.	1.9	26

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55	Ecological classification of a set of Mediterranean reservoirs applying the EU Water Framework Directive: A reasonable compromise between science and management. Lake and Reservoir Management, 2009, 25, 364-376.	0.4	25
56	Net heterotrophy and CO <sub>2</sub> evasion from a productive calcareous reservoir: Adding complexity to the metabolism-CO <sub>2</sub> evasion issue. Journal of Geophysical Research, 2011, 116,	3.3	24
57	Modelling river water temperature using deterministic, empirical, and hybrid formulations in a Mediterranean stream. Hydrological Processes, 2008, 22, 3418-3430.	1.1	22
58	Using spatially distributed parameters and multiâ€response objective functions to solve parameterization of complex applications of semiâ€distributed hydrological models. Water Resources Research, 2008, 44, .	1.7	21
59	The Effect of River Water Circulation on the Distribution and Functioning of Reservoir Microbial Communities as Determined by a Relative Distance Approach. Ecosystems, 2011, 14, 1-14.	1.6	21
60	Modeling nutrient retention at the watershed scale: Does small stream research apply to the whole river network?. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 728-740.	1.3	20
61	Low contribution of internal metabolism to carbon dioxide emissions along lotic and lentic environments of a Mediterranean fluvial network. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 3030-3044.	1.3	20
62	Management actions to mitigate the occurrence of pharmaceuticals in river networks in a global change context. Environment International, 2020, 143, 105993.	4.8	19
63	Major Effects of Alkalinity on the Relationship Between Metabolism and Dissolved Inorganic Carbon Dynamics in Lakes. Ecosystems, 2020, 23, 1566-1580.	1.6	19
64	Localized algal blooms induced by river inflows in a canyon type reservoir. Aquatic Sciences, 2012, 74, 315-327.	0.6	17
65	Detection and attribution of global change effects on river nutrient dynamics in a large Mediterranean basin. Biogeosciences, 2015, 12, 4085-4098.	1.3	17
66	The Llobregat River Basin: A Paradigm of Impaired Rivers Under Climate Change Threats. Handbook of Environmental Chemistry, 2012, , $1$ -26.	0.2	16
67	Incorporating model uncertainty into the evaluation of interventions to reduce microcontaminant loads in rivers. Water Research, 2017, 124, 415-424.	<b>5.</b> 3	16
68	GLOBAL-FATE (version 1.0.0): A geographical information system (GIS)-based model for assessing contaminants fate in the global river network. Geoscientific Model Development, 2019, 12, 5213-5228.	1.3	16
69	Abundance and Co-Distribution of Widespread Marine Archaeal Lineages in Surface Sediments of Freshwater Water Bodies across the Iberian Peninsula. Microbial Ecology, 2017, 74, 776-787.	1.4	15
70	Sedimentary phosphorus in a cascade of five reservoirs (Lozoya River, Central Spain). Lake and Reservoir Management, 2009, 25, 39-48.	0.4	14
71	On non-Eltonian methods of hunting Cladocera, or impacts of the introduction of planktivorous fish on zooplankton composition and clear-water phase occurrence in a Mediterranean reservoir. Hydrobiologia, 2010, 653, 119-129.	1.0	14
72	Microbial carbon processing along a river discontinuum. Freshwater Science, 2016, 35, 1133-1147.	0.9	14

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73	The role of river inputs on the hypolimnetic chemistry of a productive reservoir: implications for management of anoxia and total phosphorus internal loading. Lake and Reservoir Management, 2008, 24, 87-98.	0.4	13
74	Cross-continental importance of CH4 emissions from dry inland-waters. Science of the Total Environment, 2022, 814, 151925.	3.9	13
75	Characterization of residence time variability in a managed monomictic reservoir. Water Resources Research, 2012, 48, .	1.7	12
76	Effects of subinhibitory ciprofloxacin concentrations on the abundance of qnrS and composition of bacterial communities from water supply reservoirs. Chemosphere, 2016, 161, 470-474.	4.2	12
77	El Ni $ ilde{A}\pm$ o southern oscillation and seasonal drought drive riparian input dynamics in a Mediterranean stream. Limnology and Oceanography, 2016, 61, 214-226.	1.6	12
78	Does the severity of nonâ€flow periods influence ecosystem structure and function of temporary streams? A mesocosm study. Freshwater Biology, 2018, 63, 613-625.	1.2	11
79	Forecasting water temperature in lakes and reservoirs using seasonal climate prediction. Water Research, 2021, 201, 117286.	5 <b>.</b> 3	11
80	Dams and Reservoirs in the Lower Ebro River and Its Effects on the River Thermal Cycle. Handbook of Environmental Chemistry, 2010, , 77-95.	0.2	10
81	Distribution of dissolved organic matter in freshwaters using excitation emission fluorescence and Multivariate Curve Resolution. Chemosphere, 2014, 111, 120-128.	4.2	10
82	Dissolved organic matter spectroscopy reveals a hot spot of organic matter changes at the river–reservoir boundary. Aquatic Sciences, 2021, 83, 1.	0.6	10
83	The relevance of pelagic calcification in the global carbon budget of lakes and reservoirs. , 2022, 41, 17-25.		10
84	Opportunities for seasonal forecasting to support water management outside the tropics. Hydrology and Earth System Sciences, 2022, 26, 1389-1406.	1.9	10
85	Introduction on Emerging Contaminants in Rivers and Their Environmental Risk. Handbook of Environmental Chemistry, 2015, , 3-25.	0.2	9
86	Using equilibrium temperature to assess thermal disturbances in rivers. Hydrological Processes, 2015, 29, 4350-4360.	1.1	9
87	Using dynamic factor analysis to show how sampling resolution and data gaps affect the recognition of patterns in limnological time series. Inland Waters, 2016, 6, 284-294.	1.1	8
88	Drivers of phytoplankton responses to summer wind events in a stratified lake: A modeling study. Limnology and Oceanography, 2022, 67, 856-873.	1.6	8
89	In-Stream Nutrient Flux and Retention in Relation to Land Use in the Llobregat River Basin. Handbook of Environmental Chemistry, 2012, , 69-92.	0.2	7
90	From End-of-Pipe to Nature Based Solutions: a Simple Statistical Tool for Maximizing the Ecosystem Services Provided by Reservoirs for Drinking Water Treatment. Water Resources Management, 2018, 32, 1307-1323.	1.9	5

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91	Effect of small water retention structures on diffusive CO2 and CH4 emissions along a highly impounded river. Inland Waters, 2018, 8, 449-460.	1.1	5
92	Eutrophication and Geochemistry Drive Pelagic Calcite Precipitation in Lakes. Water (Switzerland), 2021, 13, 597.	1.2	5
93	A universal bacterial inoculum for dissolved organic carbon biodegradation experiments in freshwaters. Limnology and Oceanography: Methods, 2018, 16, 421-433.	1.0	4
94	Climate and Land Cover Trends Affecting Freshwater Inputs to a Fjord in Northwestern Patagonia. Frontiers in Marine Science, 2021, 8, .	1.2	4
95	Securing Biodiversity, Functional Integrity, and Ecosystem Services in Drying River Networks (DRYvER). Research Ideas and Outcomes, 0, 7, .	1.0	4
96	Spatio-temporal variability of carbon dioxide and methane emissions from a Mediterranean reservoir., 2022, 41, 43-60.		3
97	Carbon dioxide emission from drawdown areas of a Mediterranean reservoir., 2022, 41, 61-72.		3
98	The drawdown phase of dam decommissioning is a hot moment of gaseous carbon emissions from a temperate reservoir. Inland Waters, 2022, 12, 451-462.	1,1	3
99	Water Quality in Reservoirs Under a Changing Climate. Handbook of Environmental Chemistry, 2009, , 73-94.	0.2	2
100	Fate and Degradation of Emerging Contaminants in Rivers: Review of Existing Models. Handbook of Environmental Chemistry, 2015, , 159-193.	0.2	2
101	Hydrology influences carbon flux through metabolic pathways in the hypolimnion of a Mediterranean reservoir. Aquatic Sciences, 2022, 84, .	0.6	2
102	Drastic reduction of nutrient loading to a reservoir alters its resistance to impacts of extreme climatic events. Environmental Research Letters, 2022, 17, 084007.	2.2	2
103	Assessing Ecological Integrity in Large Reservoirs According to the Water Framework Directive. Handbook of Environmental Chemistry, 2015, , 201-219.	0.2	1
104	A Methodological Framework for Characterizing the Spatiotemporal Variability of River Water-Quality Patterns Using Dynamic Factor Analysis. Journal of Environmental Informatics, 0, , .	6.0	1
105	Drivers of variability in disinfection by-product formation potential in a chain of thermally stratified drinking water reservoirs. Environmental Science: Water Research and Technology, 2022, 8, 968-980.	1.2	1
106	Occurrence et devenir des polluants émergents (antibiotiques) dans un aquifère alluvial et leur influence sur les bactéries multi-résistantes (Bas-FluviÃ, Catalogne). Houille Blanche, 2018, 104, 47-52.	0.3	0
107	Reuniting biogeochemistry with ecology and evolution. Science, 2019, 366, 805-806.	6.0	0
108	On non-Eltonian methods of hunting Cladocera, or impacts of the introduction of planktivorous fish on zooplankton composition and clear-water phase occurrence in a Mediterranean reservoir. , 2010, , 119-129.		0

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109	Ecosystem Metabolism in River Networks and Global Climate Change. , 2016, , 137-152.		0
110	Primer C-Hydrochange workshop sobre métodos y técnicas de medida de flujos de CO2 y CH4 en lagos y embalses. Ecosistemas, 2018, 27, 142-143.	0.2	0