Dennis Trolle

List of Publications by Year
in descending order

67 papers	3,308 citations	159525 30 h-index	149623 56 g-index
70 all docs	70 docs citations	70 times ranked	3628 citing authors

#	Article	IF	Citations
1	Climate change impacts on lakes: an integrated ecological perspective based on a multi-faceted approach, with special focus on shallow lakes. Journal of Limnology, 2014, 73, .	0.3	235
2	Biomanipulation as a Restoration Tool to Combat Eutrophication. Advances in Ecological Research, 2012, 47, 411-488.	1.4	211
3	Challenges and opportunities for integrating lake ecosystem modelling approaches. Aquatic Ecology, 2010, 44, 633-667.	0.7	208
4	Hydrological and water quality impact assessment of a Mediterranean limno-reservoir under climate change and land use management scenarios. Journal of Hydrology, 2014, 509, 354-366.	2.3	168
5	Combined effects of climate models, hydrological model structures and land use scenarios on hydrological impacts of climate change. Journal of Hydrology, 2016, 535, 301-317.	2.3	156
6	Predicting the effects of climate change on trophic status of three morphologically varying lakes: Implications for lake restoration and management. Environmental Modelling and Software, 2011, 26, 354-370.	1.9	155
7	Watershed land use effects on lake water quality in Denmark. Ecological Applications, 2012, 22, 1187-1200.	1.8	136
8	Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. Aquatic Ecology, 2015, 49, 513-548.	0.7	97
9	Modeling the effects of climatic and land use changes on phytoplankton and water quality of the largest Turkish freshwater lake: Lake BeyÅŸehir. Science of the Total Environment, 2018, 621, 802-816.	3.9	97
10	A multi-lake comparative analysis of the General Lake Model (GLM): Stress-testing across a global observatory network. Environmental Modelling and Software, 2018, 102, 274-291.	1.9	93
11	A community-based framework for aquatic ecosystem models. Hydrobiologia, 2012, 683, 25-34.	1.0	87
12	The Water Framework Directive: Setting the phosphorus loading target for a deep lake in Denmark using the 1D lake ecosystem model DYRESMâ€"CAEDYM. Ecological Modelling, 2008, 219, 138-152.	1.2	79
13	Quantifying the combined effects of land use and climate changes on stream flow and nutrient loads: A modelling approach in the Odense Fjord catchment (Denmark). Science of the Total Environment, 2018, 621, 253-264.	3.9	79
14	Advancing projections of phytoplankton responses to climate change through ensemble modelling. Environmental Modelling and Software, 2014, 61, 371-379.	1.9	78
15	Seasonal Dynamics of CO_2 Flux Across the Surface of Shallow Temperate Lakes. Ecosystems, 2012, 15, 336-347.	1.6	75
16	The impact of the objective function in multi-site and multi-variable calibration of the SWAT model. Environmental Modelling and Software, 2017, 93, 255-267.	1.9	75
17	A Global Lake Ecological Observatory Network (GLEON) for synthesising highâ€"frequency sensor data for validation of deterministic ecological models. Inland Waters, 2015, 5, 49-56.	1.1	62
18	Future water availability in the largest freshwater Mediterranean lake is at great risk as evidenced from simulations with the SWAT model. Science of the Total Environment, 2017, 581-582, 413-425.	3.9	62

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19	The influence of water quality and sediment geochemistry on the horizontal and vertical distribution of phosphorus and nitrogen in sediments of a large, shallow lake. Hydrobiologia, 2009, 627, 31-44.	1.0	57
20	Comparison of abstraction scenarios simulated by SWAT and SWAT-MODFLOW. Hydrological Sciences Journal, 2019, 64, 434-454.	1.2	57
21	Effects of climate and nutrient load on the water quality of shallow lakes assessed through ensemble runs by PCLake. Ecological Applications, 2014, 24, 1926-1944.	1.8	55
22	FABM-PCLake â€" linking aquatic ecology with hydrodynamics. Geoscientific Model Development, 2016, 9, 2271-2278.	1.3	49
23	Effects of changes in land use and climate on aquatic ecosystems: Coupling of models and decomposition of uncertainties. Science of the Total Environment, 2019, 657, 627-633.	3.9	48
24	A QGIS-based graphical user interface for application and evaluation of SWAT-MODFLOW models. Environmental Modelling and Software, 2019, 111, 493-497.	1.9	48
25	Predicting the effects of reduced external nitrogen loading on the nitrogen dynamics and ecological state of deep Lake Ravn, Denmark, using the DYRESMâ€"CAEDYM model. Limnologica, 2008, 38, 220-232.	0.7	47
26	A Bayesian synthesis of predictions from different models for setting water quality criteria. Ecological Modelling, 2012, 242, 127-145.	1.2	38
27	Climate Change Will Make Recovery from Eutrophication More Difficult in Shallow Danish Lake SÃ¸bygaard. Water (Switzerland), 2016, 8, 459.	1.2	36
28	An open source QGIS-based workflow for model application and experimentation with aquatic ecosystems. Environmental Modelling and Software, 2017, 95, 358-364.	1.9	36
29	Assessing ways to combat eutrophication in a Chinese drinking water reservoir using SWAT. Marine and Freshwater Research, 2013, 64, 475.	0.7	33
30	Predicting ecosystem state changes in shallow lakes using an aquatic ecosystem model: Lake Hinge, Denmark, an example. Ecological Applications, 2020, 30, e02160.	1.8	33
31	Serving many at once: How a database approach can create unity in dynamical ecosystem modelling. Environmental Modelling and Software, 2014, 61, 266-273.	1.9	31
32	Assessment of land use and climate change effects on land subsidence using a hydrological model and radar technique. Journal of Hydrology, 2019, 578, 124070.	2.3	31
33	The impact of climate change on a Mediterranean shallow lake: insights based on catchment and lake modelling. Regional Environmental Change, 2020, 20, 1.	1.4	30
34	Modeling the response of phytoplankton to reduced external nutrient load in a subtropical Chinese reservoir using DYRESM-CAEDYM. Lake and Reservoir Management, 2016, 32, 146-157.	0.4	28
35	Quantifying the streamflow response to groundwater abstractions for irrigation or drinking water at catchment scale using SWAT and SWATâ€"MODFLOW. Environmental Sciences Europe, 2020, 32, .	2.6	28
36	Sediment and nutrient accumulation rates in sediments of twelve New Zealand lakes: influence of lake morphology, catchment characteristics and trophic state. Marine and Freshwater Research, 2008, 59, 1067.	0.7	25

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37	Application of a Three-Dimensional Water Quality Model as a Decision Support Tool for the Management of Land-Use Changes in the Catchment of an Oligotrophic Lake. Environmental Management, 2014, 54, 479-493.	1.2	25
38	Quantifying the effects of climate change on hydrological regime and stream biota in a groundwater-dominated catchment: A modelling approach combining SWAT-MODFLOW with flow-biota empirical models. Science of the Total Environment, 2020, 745, 140933.	3.9	24
39	Evaluating the influence of lake morphology, trophic status and diagenesis on geochemical profiles in lake sediments. Applied Geochemistry, 2010, 25, 621-632.	1.4	23
40	Assessing the impacts of groundwater abstractions on flow regime and stream biota: Combining SWAT-MODFLOW with flow-biota empirical models. Science of the Total Environment, 2020, 706, 135702.	3.9	23
41	Major changes in CO2 efflux when shallow lakes shift from a turbid to a clear water state. Hydrobiologia, 2016, 778, 33-44.	1.0	22
42	Spatial heterogeneity in geothermally-influenced lakes derived from atmospherically corrected Landsat thermal imagery and three-dimensional hydrodynamic modelling. International Journal of Applied Earth Observation and Geoinformation, 2016, 50, 106-116.	1.4	21
43	Advantages of concurrent use of multiple software frameworks in water quality modelling using a database approach. Fundamental and Applied Limnology, 2015, 186, 5-20.	0.4	20
44	A holistic approach for determining the hydrology of the mar menor coastal lagoon by combining hydrological & hydrodynamic models. Journal of Hydrology, 2021, 603, 127150.	2.3	20
45	Modelling sediment and total phosphorus export from a lowland catchment: comparing sediment routing methods. Hydrological Processes, 2015, 29, 280-294.	1.1	18
46	Autocalibration of a one-dimensional hydrodynamic-ecological model (DYRESM 4.0-CAEDYM 3.1) using a Monte Carlo approach: simulations of hypoxic events in a polymictic lake. Geoscientific Model Development, 2018, 11, 903-913.	1.3	18
47	A QGIS plugin to tailor SWAT watershed delineations to lake and reservoir waterbodies. Environmental Modelling and Software, 2018, 108, 67-71.	1.9	18
48	Extended SWAT model for dissolved reactive phosphorus transport in tile-drained fields and catchments. Agricultural Water Management, 2016, 175, 78-90.	2.4	16
49	Modeling the Ecological Response of a Temporarily Summer-Stratified Lake to Extreme Heatwaves. Water (Switzerland), 2020, 12, 94.	1.2	16
50	How morphology shapes the parameter sensitivity of lake ecosystem models. Environmental Modelling and Software, 2021, 136, 104945.	1.9	16
51	Modelling Nutrient Load Changes from Fertilizer Application Scenarios in Six Catchments around the Baltic Sea. Agriculture (Switzerland), 2017, 7, 41.	1.4	15
52	Forecasting near-future impacts of land use and climate change on the Zilbier river hydrological regime, northwestern Iran. Environmental Earth Sciences, 2019, 78, 1.	1.3	15
53	Modeling the impacts of climate change on the thermal and oxygen dynamics of Lake Volta. Journal of Great Lakes Research, 2019, 45, 73-86.	0.8	15
54	Introducing QWET â€" A QGIS-plugin for application, evaluation and experimentation with the WET model. Environmental Modelling and Software, 2021, 135, 104886.	1.9	15

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55	Impacts of land use, climate change and hydrological model structure on nitrate fluxes: Magnitudes and uncertainties. Science of the Total Environment, 2022, 830, 154671.	3.9	15
56	Modelling the fate and transport of Cryptosporidium, a zoonotic and waterborne pathogen, in the Daning River watershed of the Three Gorges Reservoir Region, China. Journal of Environmental Management, 2019, 232, 462-474.	3.8	14
57	Environmental Impacts—Lake Ecosystems. Regional Climate Studies, 2016, , 315-340.	1.2	14
58	Daily net ecosystem production in lakes predicted from midday dissolved oxygen saturation: analysis of a five‐year high frequency dataset from 24 mesocosms with contrasting trophic states and temperatures. Limnology and Oceanography: Methods, 2013, 11, 202-212.	1.0	8
59	The impacts of extreme climate on summer-stratified temperate lakes: Lake Sĵholm, Denmark, as an example. Hydrobiologia, 2021, 848, 3521-3537.	1.0	8
60	A comparison of frameworks for separating the impacts of human activities and climate change on river flow in existing records and different <scp>near‐future</scp> scenarios. Hydrological Processes, 2021, 35, e14301.	1.1	8
61	Water Ecosystems Tool (WET) 1.0 â€" a new generation of flexible aquatic ecosystem model. Geoscientific Model Development, 2022, 15, 3861-3878.	1.3	8
62	The combined effects of fertilizer reduction on high risk areas and increased fertilization on low risk areas, investigated using the SWAT model for a Danish catchment. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2015, 65, 217-227.	0.3	7
63	Are maps of nitrate reduction in groundwater altered by climate and land use changes?. Hydrology and Earth System Sciences, 2022, 26, 955-973.	1.9	6
64	Land Use Change to Reduce Freshwater Nitrogen and Phosphorus will Be Effective Even with Projected Climate Change. Water (Switzerland), 2022, 14, 829.	1.2	4
65	Assessing Impacts of Changes in External Nutrient Loadings on a Temperate Chinese Drinking Water Reservoir. Frontiers in Environmental Science, 2021, 9, .	1.5	3
66	A GIS-based framework for quantifying potential shadow casts on lakes applied to a Danish lake experimental facility. International Journal of Applied Earth Observation and Geoinformation, 2018, 73, 746-751.	1.4	2
67	Testing a New Holistic Management Tool for Nitrogen—Environmental Impacts of Using Manure Acidification in the Danish Agricultural Sector. Springer Proceedings in Complexity, 2018, , 535-539.	0.2	0