Wolf M Mooij

List of Publications by Year
in descending order

139 papers	11,748 citations	36203 51 h-index	29081 104 g-index
140 all docs	140 docs citations	140 times ranked	12546 citing authors

#	Article	IF	Citations
1	A standard protocol for describing individual-based and agent-based models. Ecological Modelling, 2006, 198, 115-126.	1.2	2,219
2	Pattern-Oriented Modeling of Agent-Based Complex Systems: Lessons from Ecology. Science, 2005, 310, 987-991.	6.0	1,685
3	Beyond the Plankton Ecology Group (PEG) Model: Mechanisms Driving Plankton Succession. Annual Review of Ecology, Evolution, and Systematics, 2012, 43, 429-448.	3.8	604
4	Individual-Based Modeling of Ecological and Evolutionary Processes. Annual Review of Ecology, Evolution, and Systematics, 2005, 36, 147-168.	3.8	481
5	The impact of climate change on lakes in the Netherlands: a review. Aquatic Ecology, 2005, 39, 381-400.	0.7	281
6	Plankton dynamics under different climatic conditions in space and time. Freshwater Biology, 2013, 58, 463-482.	1.2	259
7	Challenges and opportunities for integrating lake ecosystem modelling approaches. Aquatic Ecology, 2010, 44, 633-667.	0.7	208
8	Experimental Evidence for Spatial Self-Organization and Its Emergent Effects in Mussel Bed Ecosystems. Science, 2008, 322, 739-742.	6.0	201
9	Detritus-Dependent Development of the Microbial Community in an Experimental System: Qualitative Analysis by Denaturing Gradient Gel Electrophoresis. Applied and Environmental Microbiology, 1999, 65, 2478-2484.	1.4	196
10	Inducible defences and the paradox of enrichment. Oikos, 2004, 105, 471-480.	1.2	164
11	Predicting the effect of climate change on temperate shallow lakes with the ecosystem model PCLake. Hydrobiologia, 2007, 584, 443-454.	1.0	134
12	Pattern formation at multiple spatial scales drives the resilience of mussel bed ecosystems. Nature Communications, 2014, 5, 5234.	5.8	127
13	Creating a safe operating space for wetlands in a changing climate. Frontiers in Ecology and the Environment, 2017, 15, 99-107.	1.9	125
14	Estimating the critical phosphorus loading of shallow lakes with the ecosystem model PCLake: Sensitivity, calibration and uncertainty. Ecological Modelling, 2010, 221, 654-665.	1.2	123
15	Tubeâ€dwelling invertebrates: tiny ecosystem engineers have large effects in lake ecosystems. Ecological Monographs, 2015, 85, 333-351.	2.4	122
16	Allelopathic inhibition of phytoplankton by exudates from Stratiotes aloides. Aquatic Botany, 2005, 82, 284-296.	0.8	113
17	Critical phosphorus loading of different types of shallow lakes and the consequences for management estimated with the ecosystem model PCLake. Limnologica, 2008, 38, 203-219.	0.7	113
18	Spatial identification of critical nutrient loads of large shallow lakes: Implications for Lake Taihu (China). Water Research, 2017, 119, 276-287.	5.3	111

#	Article	IF	Citations
19	Hydrological regulation drives regime shifts: evidence from paleolimnology and ecosystem modeling of a large shallow Chinese lake. Global Change Biology, 2017, 23, 737-754.	4.2	111
20	Modeling lakes and reservoirs in the climate system. Limnology and Oceanography, 2009, 54, 2315-2329.	1.6	101
21	Community stoichiometry in a changing world: combined effects of warming and eutrophication on phytoplankton dynamics. Ecology, 2014, 95, 1485-1495.	1.5	99
22	Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. Aquatic Ecology, 2015, 49, 513-548.	0.7	97
23	Response of Submerged Macrophyte Communities to External and Internal Restoration Measures in North Temperate Shallow Lakes. Frontiers in Plant Science, 2018, 9, 194.	1.7	97
24	Alternative stable states in large shallow lakes?. Journal of Great Lakes Research, 2014, 40, 813-826.	0.8	93
25	GLOBIO-Aquatic, a global model of human impact on the biodiversity of inland aquatic ecosystems. Environmental Science and Policy, 2015, 48, 99-114.	2.4	93
26	Towards a global model for wetlands ecosystem services. Current Opinion in Environmental Sustainability, 2019, 36, 11-19.	3.1	93
27	FUZZY MODELING OF CYANOBACTERIAL SURFACE WATERBLOOMS: VALIDATION WITH NOAA-AVHRR SATELLITE IMAGES. , 2003, 13, 1456-1472.		92
28	Chytrid infections and diatom spring blooms: paradoxical effects of climate warming on fungal epidemics in lakes. Freshwater Biology, 2011, 56, 754-766.	1.2	92
29	A community-based framework for aquatic ecosystem models. Hydrobiologia, 2012, 683, 25-34.	1.0	87
30	INDUCIBLE DEFENSES AND TROPHIC STRUCTURE. Ecology, 2004, 85, 2783-2794.	1.5	86
31	Food-web stability signals critical transitions in temperate shallow lakes. Nature Communications, 2015, 6, 7727.	5.8	86
32	Search paths of swans foraging on spatially autocorrelated tubers. Journal of Animal Ecology, 2002, 71, 451-462.	1.3	84
33	Climate-induced shifts in an experimental phytoplankton community: a mechanistic approach. Hydrobiologia, 2007, 584, 403-413.	1.0	81
34	Plant functional types define magnitude of drought response in peatland CO₂ exchange. Ecology, 2014, 95, 123-131.	1.5	80
35	Advancing projections of phytoplankton responses to climate change through ensemble modelling. Environmental Modelling and Software, 2014, 61, 371-379.	1.9	78
36	The Resilience and Resistance of an Ecosystem to a Collapse of Diversity. PLoS ONE, 2012, 7, e46135.	1.1	75

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37	Allelopathic growth inhibition and colony formation of the green alga Scenedesmus obliquus by the aquatic macrophyte Stratiotes aloides. Aquatic Ecology, 2005, 39, 11-21.	0.7	68
38	Can overwintering versus diapausing strategy in Daphnia determine matchâ€“mismatch events in zooplanktonâ€“algae interactions?. Oecologia, 2007, 150, 682-698.	0.9	67
39	Infochemicals structure marine, terrestrial and freshwater food webs: Implications for ecological informatics. Ecological Informatics, 2006, 1, 23-32.	2.3	66
40	Mowing Submerged Macrophytes in Shallow Lakes with Alternative Stable States: Battling the Good Guys?. Environmental Management, 2017, 59, 619-634.	1.2	64
41	Coupled human and natural system dynamics as key to the sustainability of Lake Victoria’s ecosystem services. Ecology and Society, 2014, 19, .	1.0	62
42	Does "supersaturated coexistence" resolve the "paradox of the plankton"?. Ecology Letters, 2001, 4, 404-407.	3.0	61
43	The impact of climate warming on water temperature, timing of hatching and young-of-the-year growth of fish in shallow lakes in the Netherlands. Journal of Sea Research, 2008, 60, 32-43.	0.6	61
44	Growth Rate of 0+ Fish in Relation to Temperature, Body Size, and Food in Shallow Eutrophic Lake Tjeukemeer. Canadian Journal of Fisheries and Aquatic Sciences, 1994, 51, 516-526.	0.7	58
45	How to model algal blooms in any lake on earth. Current Opinion in Environmental Sustainability, 2019, 36, 1-10.	3.1	57
46	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
47	Seasonal patterns in the mortality ofDaphniaspecies in a shallow lake. Canadian Journal of Fisheries and Aquatic Sciences, 1996, 53, 18-28.	0.7	54
48	Photoinhibition and the assembly of lightâ€limited phytoplankton communities. Oikos, 2011, 120, 359-368.	1.2	54
49	From inducible defences to population dynamics: modelling refuge use and life history changes inDaphnia. Oikos, 2002, 99, 386-396.	1.2	53
50	Linking species- and ecosystem-level impacts of climate change in lakes with a complex and a minimal model. Ecological Modelling, 2009, 220, 3011-3020.	1.2	53
51	Collapse and reorganization of a food web of Mwanza Gulf, Lake Victoria. Ecological Applications, 2012, 22, 229-239.	1.8	53
52	Seasonal variation in the interactions between piscivorous fish, planktivorous fish and zooplankton in a shallow eutrophic lake. Hydrobiologia, 1990, 207, 279-286.	1.0	52
53	TRADE-OFFS IN DAPHNIA HABITAT SELECTION. Ecology, 2004, 85, 2027-2036.	1.5	51
54	Vertical stratification of physical, chemical and biological components in two saline lakes Shira and Shunet (South Siberia, Russia). Aquatic Ecology, 2010, 44, 619-632.	0.7	51

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55	The Effect of Atmospheric Carbon Dioxide Elevation on Plant Growth in Freshwater Ecosystems. Ecosystems, 2004, 7, 63-74.	1.6	50
56	FABM-PCLake â€“ linking aquatic ecology with hydrodynamics. Geoscientific Model Development, 2016, 9, 2271-2278.	1.3	49
57	Competition for Light and Nutrients in Layered Communities of Aquatic Plants. American Naturalist, 2015, 186, 72-83.	1.0	47
58	Towards restoring urban waters: understanding the main pressures. Current Opinion in Environmental Sustainability, 2019, 36, 49-58.	3.1	47
59	INDUCED DEFENSES IN HERBIVORES AND PLANTS DIFFERENTIALLY MODULATE A TROPHIC CASCADE. Ecology, 2007, 88, 2474-2481.	1.5	46
60	PCLake+: A process-based ecological model to assess the trophic state of stratified and non-stratified freshwater lakes worldwide. Ecological Modelling, 2019, 396, 23-32.	1.2	46
61	Extending one-dimensional models for deep lakes to simulate the impact of submerged macrophytes on water quality. Environmental Modelling and Software, 2014, 61, 410-423.	1.9	45
62	Success of lake restoration depends on spatial aspects of nutrient loading and hydrology. Science of the Total Environment, 2019, 679, 248-259.	3.9	45
63	Growth of 0+ Roach (Rutilus rutilus) in Relation to Temperature and Size in a Shallow Eutrophic Lake: Comparison of Field and Laboratory Observations. Canadian Journal of Fisheries and Aquatic Sciences, 1990, 47, 960-967.	0.7	43
64	Adaptation of the Fungal Parasite Zygorhizidium planktonicum During 200 Generations of Growth on Homogeneous and Heterogeneous Populations of Its Host, the Diatom Asterionella formosa¹. Journal of Eukaryotic Microbiology, 2008, 55, 69-74.	0.8	43
65	An object-oriented simulation framework for individual-based simulations (OSIRIS): Daphnia population dynamics as an example. Ecological Modelling, 1996, 93, 139-153.	1.2	42
66	Exploring the effect of drought extent and interval on the Florida snail kite: interplay between spatial and temporal scales. Ecological Modelling, 2002, 149, 25-39.	1.2	41
67	An Integrated Coral Reef Ecosystem Model to Support Resource Management under a Changing Climate. PLoS ONE, 2015, 10, e0144165.	1.1	37
68	UNCERTAINTY IN SPATIALLY EXPLICIT ANIMAL DISPERSAL MODELS. , 2003, 13, 794-805.		36
69	Climate Change Will Make Recovery from Eutrophication More Difficult in Shallow Danish Lake SÃ¸bygaard. Water (Switzerland), 2016, 8, 459.	1.2	36
70	Estimation of the long-term nutrient budget and thresholds of regime shift for a large shallow lake in China. Ecological Indicators, 2015, 52, 231-244.	2.6	35
71	Differences in the exploitation of bream in three shallow lake systems and their relation to water quality. Freshwater Biology, 2002, 47, 2435-2442.	1.2	34
72	Variation in abundance and survival of fish larvae in shallow eutrophic lake Tjeukemeer. Environmental Biology of Fishes, 1996, 46, 265-279.	0.4	33

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73	How models can support ecosystem-based management of coral reefs. Progress in Oceanography, 2015, 138, 559-570.	1.5	33
74	Integrated modelling and management of water resources: the ecosystem perspective on the nexus approach. Current Opinion in Environmental Sustainability, 2019, 40, 14-20.	3.1	33
75	Error Propagation in Spatially Explicit Population Models: a Reassessment. Conservation Biology, 1999, 13, 930-933.	2.4	32
76	Changes in food web structure and ecosystem functioning of a large, shallow Chinese lake during the 1950s, 1980s and 2000s. Ecological Modelling, 2016, 319, 31-41.	1.2	32
77	Multimedia fate modeling of perfluorooctanoic acid (PFOA) and perfluorooctane sulphonate (PFOS) in the shallow lake Chaohu, China. Environmental Pollution, 2018, 237, 339-347.	3.7	32
78	Matching scope, purpose and uses of planetary boundaries science. Environmental Research Letters, 2019, 14, 073005.	2.2	32
79	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
80	Integrated ecological and chemical food web accumulation modeling explains PAH temporal trends during regime shifts in a shallow lake. Water Research, 2017, 119, 73-82.	5.3	29
81	Analysis and Comparison of Fish Growth from Small Samples of Length-at-Age Data: Detection of Sexual Dimorphism in Eurasian Perch as an Example. Transactions of the American Fisheries Society, 1999, 128, 483-490.	0.6	28
82	Energetic costs, underlying resource allocation patterns, and adaptive value of predatorâ€induced lifeâ€history shifts. Oikos, 2008, 117, 273-285.	1.2	28
83	Inducible defenses and rotifer food chain dynamics. Hydrobiologia, 2007, 593, 103-110.	1.0	26
84	Alternative states and population crashes in a resourceâ€susceptibleâ€infected model for planktonic parasites and hosts. Freshwater Biology, 2013, 58, 538-551.	1.2	26
85	A quantitative test of the size efficiency hypothesis by means of a physiologically structured model. Oikos, 2005, 110, 43-54.	1.2	24
86	Linking herbivore-induced defences to population dynamics. Freshwater Biology, 2006, 51, 424-434.	1.2	24
87	A perspective on water quality in connected systems: modelling feedback between upstream and downstream transport and local ecological processes. Current Opinion in Environmental Sustainability, 2019, 40, 21-29.	3.1	24
88	Inducible defenses, competition and shared predation in planktonic food chains. Oecologia, 2008, 157, 697-705.	0.9	23
89	GENOTYPEâ€BYâ€TEMPERATURE INTERACTIONS MAY HELP TO MAINTAIN CLONAL DIVERSITY IN ASTERIONELLA FORMOSA (BACILLARIOPHYCEAE). Journal of Phycology, 2012, 48, 1197-1208.	1.0	23
90	Modeling water quality in the Anthropocene: directions for the next-generation aquatic ecosystem models. Current Opinion in Environmental Sustainability, 2019, 36, 85-95.	3.1	23

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91	Effects of infochemicals released by gape-limited fish on life history traits of Daphnia: a maladaptive response?. Journal of Plankton Research, 2004, 26, 535-543.	0.8	22
92	The Contribution of Marsh Zones to Water Quality in Dutch Shallow Lakes: A Modeling Study. Environmental Management, 2008, 42, 1002-1016.	1.2	22
93	Explaining Bacterial Dispersion on Leaf Surfaces with an Individual-Based Model (PHYLLOSIM). PLoS ONE, 2013, 8, e75633.	1.1	22
94	The impact of bird herbivory on macrophytes and the resilience of the clear-water state in shallow lakes: a model study. Hydrobiologia, 2016, 777, 197-207.	1.0	21
95	The use of a flexible patch leaving rule under exploitative competition: a field test with swans. Oikos, 2006, 112, 342-352.	1.2	20
96	Infochemical-mediated trophic interactions between the rotifer Brachionus calyciflorus and its food algae. Limnology and Oceanography, 2007, 52, 2109-2119.	1.6	20
97	The power of simulating experiments. Ecological Modelling, 2009, 220, 2594-2597.	1.2	20
98	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
99	A key to the identification of larval bream, Abramis brama, white bream, Blicca bjoerkna, and roach, Rutilus rutilus. Journal of Fish Biology, 1989, 34, 111-118.	0.7	19
100	Algal defenses, population stability, and the risk of herbivore extinctions: a chemostat model and experiment. Ecological Research, 2009, 24, 1145-1153.	0.7	18
101	Alternative stable states and alternative endstates of community assembly through intra- and interspecific positive and negative interactions. Theoretical Population Biology, 2014, 96, 8-18.	0.5	18
102	Enhanced Input of Terrestrial Particulate Organic Matter Reduces the Resilience of the Clear-Water State of Shallow Lakes: A Model Study. Ecosystems, 2014, 17, 616-626.	1.6	17
103	Was Lates Late? A Null Model for the Nile Perch Boom in Lake Victoria. PLoS ONE, 2013, 8, e76847.	1.1	17
104	A general one-dimensional vertical ecosystem model of Lake Shira (Russia, Khakasia): description, parametrization and analysis. Aquatic Ecology, 2010, 44, 585-618.	0.7	16
105	A Comparison of Three Approaches to Predict Phytoplankton Biomass in Gonghu Bay of Lake Taihu. Journal of Environmental Informatics, 2014, 24, 39-51.	6.0	15
106	A one-dimensional model of vertical stratification of Lake Shira focussed on winter conditions and ice cover. Aquatic Ecology, 2010, 44, 571-584.	0.7	14
107	Testing the Paradox of Enrichment along a Land Use Gradient in a Multitrophic Aboveground and Belowground Community. PLoS ONE, 2012, 7, e49034.	1.1	14
108	Plankton dynamics under different climate conditions in tropical freshwater systems (a reply to the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.2	14

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109	Will legal international rhino horn trade save wild rhino populations?. Global Ecology and Conservation, 2020, 23, e01145.	1.0	14
110	Evaluating the effect of salinity on a simulated American crocodile (Crocodylus acutus) population with applications to conservation and Everglades restoration. Ecological Modelling, 2004, 180, 371-394.	1.2	13
111	Management of Laguna Alalay: a case study of lake restoration in Andean valleys in Bolivia. Aquatic Ecology, 2007, 41, 621-630.	0.7	13
112	Quantifying the impact of aboveâ€•and belowground higher trophic levels on plant and herbivore performance by modeling¹. Oikos, 2009, 118, 981-990.	1.2	13
113	Sizeâ€selective predation and predatorâ€induced lifeâ€history shifts alter the outcome of competition between planktonic grazers. Functional Ecology, 2011, 25, 199-208.	1.7	13
114	Numerical modeling of vertical stratification of Lake Shira in summer. Aquatic Ecology, 2010, 44, 561-570.	0.7	12
115	Integrating three lake models into a Phytoplankton Prediction System for Lake Taihu (Taihu PPS) with Python. Journal of Hydroinformatics, 2012, 14, 523-534.	1.1	12
116	Exploring How Cyanobacterial Traits Affect Nutrient Loading Thresholds in Shallow Lakes: A Modelling Approach. Water (Switzerland), 2020, 12, 2467.	1.2	12
117	How to measure topâ€“down vs bottomâ€“up effects: a new population metric and its calibration on Daphnia. Oikos, 2013, 122, 1177-1186.	1.2	11
118	A Generically Parameterized model of Lake eutrophication (GPLake) that links field-, lab- and model-based knowledge. Science of the Total Environment, 2019, 695, 133887.	3.9	11
119	Formation of year-class strength in the bream population in the shallow eutrophic Lake Tjeukemeer. Journal of Fish Biology, 1996, 48, 30-39.	0.7	10
120	Effects of resources and predation on the predictability of community composition. Oikos, 2009, 118, 1044-1052.	1.2	10
121	Effects of resources and mortality on the growth and reproduction of Nile perch in Lake Victoria. Freshwater Biology, 2013, 58, 828-840.	1.2	10
122	How Regime Shifts in Connected Aquatic Ecosystems Are Affected by the Typical Downstream Increase of Water Flow. Ecosystems, 2017, 20, 733-744.	1.6	10
123	Modelling induced bank filtration effects on freshwater ecosystems to ensure sustainable drinking water production. Water Research, 2019, 157, 19-29.	5.3	10
124	Exploring desirable nature futures for Nationaal Park Hollandse Duinen. Ecosystems and People, 2022, 18, 329-347.	1.3	10
125	Smart Nutrient Retention Networks: a novel approach for nutrient conservation through water quality management. Inland Waters, 2022, 12, 138-153.	1.1	9
126	Nitrogen fixation does not axiomatically lead to phosphorus limitation in aquatic ecosystems. Oikos, 2019, 128, 563-570.	1.2	7

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127	INDUCIBLE DEFENSES IN FOOD WEBS. , 2005, , 114-127.		5
128	Temperature effects on egg and larval development rate in European smelt, <scp>Osmerus eperlanus</scp>, experiments and a 50â€‰year hindcast. Journal of Fish Biology, 2020, 96, 1422-1433.	0.7	4
129	Climate-induced shifts in an experimental phytoplankton community: a mechanistic approach. , 2007, , 403-413.		4
130	Flipping Lakes: Explaining concepts of catchmentâ€scale water management through a serious game. Limnology and Oceanography: Methods, 2021, 19, 443-456.	1.0	3
131	Exploring the Temporal Effects of Seasonal Water Availability on the Snail Kite of Florida. , 2007, , 155-173.		2
132	Feedback Effects Between the Food Chain and Induced Defense Strategies. , 2007, , 213-235.		2
133	Statistical analysis of the somatic growth rate of 0<J252>+<J0> fish in relation to temperature under natural conditions. Canadian Journal of Fisheries and Aquatic Sciences, 1998, 55, 451-458.	0.7	2
134	Bridging Theories for Ecosystem Stability Through Structural Sensitivity Analysis of Ecological Models in Equilibrium. Acta Biotheoretica, 2022, 70, .	0.7	2
135	Preface to the Siberian lakes special issue. Aquatic Ecology, 2010, 44, 481-483.	0.7	1
136	Assembling the pieces of Lake Victoria's many food webs: Reply to Kolding. , 2013, 23, 671-675.		1
137	Modelling the spatial dynamics of Maui dolphins using individual-based models. Ecological Modelling, 2019, 402, 59-65.	1.2	1
138	The Importance of Spatial Scale in the Modeling of Aquatic Ecosystems. , 2003, , 383-400.		1
139	Importance of Trait-Related Flexibility for Food-Web Dynamics and the Maintenance of Biodiversity. , 0, , 146-163.		0