Wolf M Mooij

List of Publications by Citations

138 papers	9,139 citations	45 h-index	93 g-index
140 ext. papers	10,391 ext. citations	4.8 avg, IF	5.7 L-index

#	Paper	IF	Citations
138	A standard protocol for describing individual-based and agent-based models. *Ecological Modelling*, **2006**, 198, 115-126	3	1798
137	Pattern-oriented modeling of agent-based complex systems: lessons from ecology. *Science*, **2005**, 310, 987-91	33.3	1406
136	Beyond the Plankton Ecology Group (PEG) Model: Mechanisms Driving Plankton Succession. *Annual Review of Ecology, Evolution, and Systematics*, **2012**, 43, 429-448	13.5	393
135	Individual-Based Modeling of Ecological and Evolutionary Processes. *Annual Review of Ecology, Evolution, and Systematics*, **2005**, 36, 147-168	13.5	391
134	The impact of climate change on lakes in the Netherlands: a review. *Aquatic Ecology*, **2005**, 39, 381-400	1.9	223
133	Plankton dynamics under different climatic conditions in space and time. *Freshwater Biology*, **2013**, 58, 463-482	3.1	177
132	Experimental evidence for spatial self-organization and its emergent effects in mussel bed ecosystems. *Science*, **2008**, 322, 739-42	33.3	173
131	Challenges and opportunities for integrating lake ecosystem modelling approaches. *Aquatic Ecology*, **2010**, 44, 633-667	1.9	166
130	Detritus-dependent development of the microbial community in an experimental system: qualitative analysis by denaturing gradient gel electrophoresis. *Applied and Environmental Microbiology*, **1999**, 65, 2478-84	4.8	161
129	Inducible defences and the paradox of enrichment. *Oikos*, **2004**, 105, 471-480	4	137
128	Predicting the effect of climate change on temperate shallow lakes with the ecosystem model PCLake. *Hydrobiologia*, **2007**, 584, 443-454	2.4	105
127	Allelopathic inhibition of phytoplankton by exudates from Stratiotes aloides. *Aquatic Botany*, **2005**, 82, 284-296	1.8	99
126	Estimating the critical phosphorus loading of shallow lakes with the ecosystem model PCLake: Sensitivity, calibration and uncertainty. *Ecological Modelling*, **2010**, 221, 654-665	3	98
125	Pattern formation at multiple spatial scales drives the resilience of mussel bed ecosystems. *Nature Communications*, **2014**, 5, 5234	17.4	92
124	Tube-dwelling invertebrates: tiny ecosystem engineers have large effects in lake ecosystems. *Ecological Monographs*, **2015**, 85, 333-351	9	91
123	Creating a safe operating space for wetlands in a changing climate. *Frontiers in Ecology and the Environment*, **2017**, 15, 99-107	5.5	84
122	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	2	82

121	Modeling lakes and reservoirs in the climate system. *Limnology and Oceanography*, **2009**, 54, 2315-2329	4.8	80
120	Spatial identification of critical nutrient loads of large shallow lakes: Implications for Lake Taihu (China). *Water Research*, **2017**, 119, 276-287	12.5	79
119	Hydrological regulation drives regime shifts: evidence from paleolimnology and ecosystem modeling of a large shallow Chinese lake. *Global Change Biology*, **2017**, 23, 737-754	11.4	77
118	Search paths of swans foraging on spatially autocorrelated tubers. *Journal of Animal Ecology*, **2002**, 71, 451-462	4.7	75
117	Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. *Aquatic Ecology*, **2015**, 49, 513-548	1.9	73
116	A community-based framework for aquatic ecosystem models. *Hydrobiologia*, **2012**, 683, 25-34	2.4	73
115	INDUCIBLE DEFENSES AND TROPHIC STRUCTURE. *Ecology*, **2004**, 85, 2783-2794	4.6	73
114	Community stoichiometry in a changing world: combined effects of warming and eutrophication on phytoplankton dynamics. *Ecology*, **2014**, 95, 1485-95	4.6	72
113	Chytrid infections and diatom spring blooms: paradoxical effects of climate warming on fungal epidemics in lakes. *Freshwater Biology*, **2011**, 56, 754-766	3.1	69
112	FUZZY MODELING OF CYANOBACTERIAL SURFACE WATERBLOOMS: VALIDATION WITH NOAA-AVHRR SATELLITE IMAGES **2003**, 13, 1456-1472		68
111	Alternative stable states in large shallow lakes?. *Journal of Great Lakes Research*, **2014**, 40, 813-826	3	65
110	Plant functional types define magnitude of drought response in peatland CO2 exchange. *Ecology*, **2014**, 95, 123-31	4.6	63
109	GLOBIO-Aquatic, a global model of human impact on the biodiversity of inland aquatic ecosystems. *Environmental Science and Policy*, **2015**, 48, 99-114	6.2	62
108	Food-web stability signals critical transitions in temperate shallow lakes. *Nature Communications*, **2015**, 6, 7727	17.4	61
107	Advancing projections of phytoplankton responses to climate change through ensemble modelling. *Environmental Modelling and Software*, **2014**, 61, 371-379	5.2	61
106	Climate-induced shifts in an experimental phytoplankton community: a mechanistic approach. *Hydrobiologia*, **2007**, 584, 403-413	2.4	61
105	The resilience and resistance of an ecosystem to a collapse of diversity. *PLoS ONE*, **2012**, 7, e46135	3.7	60
104	Can overwintering versus diapausing strategy in Daphnia determine match-mismatch events in zooplankton-algae interactions?. *Oecologia*, **2007**, 150, 682-98	2.9	60

103	Allelopathic growth inhibition and colony formation of the green alga Scenedesmus obliquus by the aquatic macrophyte Stratiotes aloides. *Aquatic Ecology*, **2005**, 39, 11-21	1.9	59
102	Response of Submerged Macrophyte Communities to External and Internal Restoration Measures in North Temperate Shallow Lakes. *Frontiers in Plant Science*, **2018**, 9, 194	6.2	58
101	Does supersaturated coexistence resolve the paradox of the plankton?. *Ecology Letters*, **2001**, 4, 404-407	10	54
100	Seasonal patterns in the mortality of Daphnia species in a shallow lake. *Canadian Journal of Fisheries and Aquatic Sciences*, **1996**, 53, 18-28	2.4	52
99	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	1.9	51
98	Infochemicals structure marine, terrestrial and freshwater food webs: Implications for ecological informatics. *Ecological Informatics*, **2006**, 1, 23-32	4.2	51
97	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	2.4	51
96	Linking species- and ecosystem-level impacts of climate change in lakes with a complex and a minimal model. *Ecological Modelling*, **2009**, 220, 3011-3020	3	48
95	The Effect of Atmospheric Carbon Dioxide Elevation on Plant Growth in Freshwater Ecosystems. *Ecosystems*, **2004**, 7, 63-74	3.9	45
94	From inducible defences to population dynamics: modelling refuge use and life history changes in Daphnia. *Oikos*, **2002**, 99, 386-396	4	45
93	Towards a global model for wetlands ecosystem services. *Current Opinion in Environmental Sustainability*, **2019**, 36, 11-19	7.2	45
92	Photoinhibition and the assembly of light-limited phytoplankton communities. *Oikos*, **2011**, 120, 359-368	4	44
91	Mowing Submerged Macrophytes in Shallow Lakes with Alternative Stable States: Battling the Good Guys?. *Environmental Management*, **2017**, 59, 619-634	3.1	43
90	Coupled human and natural system dynamics as key to the sustainability of Lake Victoria’s ecosystem services. *Ecology and Society*, **2014**, 19,	4.1	43
89	Collapse and reorganization of a food web of Mwanza Gulf, Lake Victoria **2012**, 22, 229-39		43
88	Effects of climate and nutrient load on the water quality of shallow lakes assessed through ensemble runs by PCLake **2014**, 24, 1926-44		40
87	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	2.4	40
86	Induced defenses in herbivores and plants differentially modulate a trophic cascade. *Ecology*, **2007**, 88, 2474-81	4.6	39

85	An object-oriented simulation framework for individual-based simulations (OSIRIS): Daphnia population dynamics as an example. *Ecological Modelling*, **1996**, 93, 139-153	3	37
84	Adaptation of the fungal parasite Zygorhizidium planktonicum during 200 generations of growth on homogeneous and heterogeneous populations of its host, the diatom Asterionella formosa. *Journal of Eukaryotic Microbiology*, **2008**, 55, 69-74	3.6	36
83	FABM-PCLake – linking aquatic ecology with hydrodynamics. *Geoscientific Model Development*, **2016**, 9, 2271-2278	6.3	36
82	TRADE-OFFS IN DAPHNIA HABITAT SELECTION. *Ecology*, **2004**, 85, 2027-2036	4.6	35
81	UNCERTAINTY IN SPATIALLY EXPLICIT ANIMAL DISPERSAL MODELS **2003**, 13, 794-805		34
80	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	3	34
79	How to model algal blooms in any lake on earth. *Current Opinion in Environmental Sustainability*, **2019**, 36, 1-10	7.2	31
78	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	5.2	30
77	Variation in abundance and survival of fish larvae in shallow eutrophic lake Tjeukemeer. *Environmental Biology of Fishes*, **1996**, 46, 265-279	1.6	30
76	How models can support ecosystem-based management of coral reefs. *Progress in Oceanography*, **2015**, 138, 559-570	3.8	29
75	Vertical stratification of physical, chemical and biological components in two saline lakes Shira and Shunet (South Siberia, Russia). *Aquatic Ecology*, **2010**, 44, 619-632	1.9	29
74	Differences in the exploitation of bream in three shallow lake systems and their relation to water quality. *Freshwater Biology*, **2002**, 47, 2435-2442	3.1	29
73	An Integrated Coral Reef Ecosystem Model to Support Resource Management under a Changing Climate. *PLoS ONE*, **2015**, 10, e0144165	3.7	29
72	Climate Change Will Make Recovery from Eutrophication More Difficult in Shallow Danish Lake Sø̈ygaard. *Water (Switzerland)*, **2016**, 8, 459	3	29
71	Competition for light and nutrients in layered communities of aquatic plants. *American Naturalist*, **2015**, 186, 72-83	3.7	28
70	Error Propagation in Spatially Explicit Population Models: a Reassessment. *Conservation Biology*, **1999**, 13, 930-933	6	28
69	Seasonal variation in the interactions between piscivorous fish, planktivorous fish and zooplankton in a shallow eutrophic lake. *Hydrobiologia*, **1990**, 207, 279-286	2.4	28
68	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	5.8	27

67	Towards restoring urban waters: understanding the main pressures. *Current Opinion in Environmental Sustainability*, **2019**, 36, 49-58	7.2	27
66	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	1.7	26
65	Multimedia fate modeling of perfluorooctanoic acid (PFOA) and perfluorooctane sulphonate (PFOS) in the shallow lake Chaohu, China. *Environmental Pollution*, **2018**, 237, 339-347	9.3	25
64	Success of lake restoration depends on spatial aspects of nutrient loading and hydrology. *Science of the Total Environment*, **2019**, 679, 248-259	10.2	24
63	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	3	24
62	Serving many at once: How a database approach can create unity in dynamical ecosystem modelling. *Environmental Modelling and Software*, **2014**, 61, 266-273	5.2	23
61	Energetic costs, underlying resource allocation patterns, and adaptive value of predator-induced life-history shifts. *Oikos*, **2008**, 117, 273-285	4	23
60	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	12.5	22
59	Inducible defenses and rotifer food chain dynamics. *Hydrobiologia*, **2007**, 593, 103-110	2.4	22
58	Inducible defenses, competition and shared predation in planktonic food chains. *Oecologia*, **2008**, 157, 697-705	2.9	21
57	A quantitative test of the size efficiency hypothesis by means of a physiologically structured model. *Oikos*, **2005**, 110, 43-54	4	21
56	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	3	20
55	Matching scope, purpose and uses of planetary boundaries science. *Environmental Research Letters*, **2019**, 14, 073005	6.2	20
54	GENOTYPE-BY-TEMPERATURE INTERACTIONS MAY HELP TO MAINTAIN CLONAL DIVERSITY IN ASTERIONELLA FORMOSA (BACILLARIOPHYCEAE). *Journal of Phycology*, **2012**, 48, 1197-208	3	20
53	The use of a flexible patch leaving rule under exploitative competition: a field test with swans. *Oikos*, **2006**, 112, 342-352	4	20
52	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	2.2	20
51	Linking herbivore-induced defences to population dynamics. *Freshwater Biology*, **2006**, 51, 424-434	3.1	19
50	Explaining bacterial dispersion on leaf surfaces with an individual-based model (PHYLLOSIM). *PLoS ONE*, **2013**, 8, e75633	3.7	18

49	The power of simulating experiments. *Ecological Modelling*, **2009**, 220, 2594-2597	3	18
48	The contribution of marsh zones to water quality in Dutch shallow lakes: a modeling study. *Environmental Management*, **2008**, 42, 1002-16	3.1	18
47	Integrated modelling and management of water resources: the ecosystem perspective on the nexus approach. *Current Opinion in Environmental Sustainability*, **2019**, 40, 14-20	7.2	17
46	Alternative states and population crashes in a resource-susceptible-infected model for planktonic parasites and hosts. *Freshwater Biology*, **2013**, 58, 538-551	3.1	17
45	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	1.9	17
44	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	2.4	16
43	Infochemical-mediated trophic interactions between the rotifer Brachionus calyciflorus and its food algae. *Limnology and Oceanography*, **2007**, 52, 2109-2119	4.8	16
42	Modeling water quality in the Anthropocene: directions for the next-generation aquatic ecosystem models. *Current Opinion in Environmental Sustainability*, **2019**, 36, 85-95	7.2	16
41	Advantages of concurrent use of multiple software frameworks in water quality modelling using a database approach. *Fundamental and Applied Limnology*, **2015**, 186, 5-20	1.9	14
40	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	3.9	13
39	Algal defenses, population stability, and the risk of herbivore extinctions: a chemostat model and experiment. *Ecological Research*, **2009**, 24, 1145-1153	1.9	13
38	Quantifying the impact of above- and belowground higher trophic levels on plant and herbivore performance by modeling1. *Oikos*, **2009**, 118, 981-990	4	13
37	A general one-dimensional vertical ecosystem model of Lake Shira (Russia, Khakasia): description, parametrization and analysis. *Aquatic Ecology*, **2010**, 44, 585-618	1.9	13
36	Was Lates late? A null model for the Nile perch boom in Lake Victoria. *PLoS ONE*, **2013**, 8, e76847	3.7	13
35	A Comparison of Three Approaches to Predict Phytoplankton Biomass in Gonghu Bay of Lake Taihu. *Journal of Environmental Informatics*, **2014**, 24, 39-51	3	13
34	A one-dimensional model of vertical stratification of Lake Shira focussed on winter conditions and ice cover. *Aquatic Ecology*, **2010**, 44, 571-584	1.9	12
33	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	3	12
32	Alternative stable states and alternative endstates of community assembly through intra- and interspecific positive and negative interactions. *Theoretical Population Biology*, **2014**, 96, 8-18	1.2	11

31	Plankton dynamics under different climate conditions in tropical freshwater systems (a reply to the comment by Sarmento, Amado & Descy,). *Freshwater Biology*, **2013**, 58, 2211-2213	3.1	11
30	Size-selective predation and predator-induced life-history shifts alter the outcome of competition between planktonic grazers. *Functional Ecology*, **2011**, 25, 199-208	5.6	11
29	Integrating three lake models into a Phytoplankton Prediction System for Lake Taihu (Taihu PPS) with Python. *Journal of Hydroinformatics*, **2012**, 14, 523-534	2.6	11
28	Numerical modeling of vertical stratification of Lake Shira in summer. *Aquatic Ecology*, **2010**, 44, 561-570	1.9	11
27	Management of Laguna Alalay: a case study of lake restoration in Andean valleys in Bolivia. *Aquatic Ecology*, **2007**, 41, 621-630	1.9	11
26	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	7.2	10
25	How to measure top‐down vs bottom‐up effects: a new population metric and its calibration on Daphnia. *Oikos*, **2013**, 122, 1177-1186	4	10
24	Testing the paradox of enrichment along a land use gradient in a multitrophic aboveground and belowground community. *PLoS ONE*, **2012**, 7, e49034	3.7	10
23	Effects of resources and predation on the predictability of community composition. *Oikos*, **2009**, 118, 1044-1052	4	10
22	Modelling induced bank filtration effects on freshwater ecosystems to ensure sustainable drinking water production. *Water Research*, **2019**, 157, 19-29	12.5	9
21	Effects of resources and mortality on the growth and reproduction of Nile perch in Lake Victoria. *Freshwater Biology*, **2013**, 58, 828-840	3.1	9
20	Formation of year-class strength in the bream population in the shallow eutrophic Lake Tjeukemeer. *Journal of Fish Biology*, **1996**, 48, 30-39	1.9	9
19	Will legal international rhino horn trade save wild rhino populations?. *Global Ecology and Conservation*, **2020**, 23, e01145	2.8	8
18	A Generically Parameterized model of Lake eutrophication (GPLake) that links field-, lab- and model-based knowledge. *Science of the Total Environment*, **2019**, 695, 133887	10.2	6
17	How Regime Shifts in Connected Aquatic Ecosystems Are Affected by the Typical Downstream Increase of Water Flow. *Ecosystems*, **2017**, 20, 733-744	3.9	6
16	INDUCIBLE DEFENSES IN FOOD WEBS **2005**, 114-127		4
15	Exploring How Cyanobacterial Traits Affect Nutrient Loading Thresholds in Shallow Lakes: A Modelling Approach. *Water (Switzerland)*, **2020**, 12, 2467	3	4
14	Nitrogen fixation does not axiomatically lead to phosphorus limitation in aquatic ecosystems. *Oikos* , **2019**, 128, 563-570	4	4

List of Publications

13	Exploring the Temporal Effects of Seasonal Water Availability on the Snail Kite of Florida **2007**, 155-173		2
12	Statistical analysis of the somatic growth rate of 0+ fish in relation to temperature under natural conditions. *Canadian Journal of Fisheries and Aquatic Sciences*, **1998**, 55, 451-458	2.4	2
11	Climate-induced shifts in an experimental phytoplankton community: a mechanistic approach **2007**, 403-413		2
10	Temperature effects on egg and larval development rate in European smelt, Osmerus eperlanus, experiments and a 50 year hindcast. *Journal of Fish Biology*, **2020**, 96, 1422-1433	1.9	1
9	Preface to the Siberian lakes special issue. *Aquatic Ecology*, **2010**, 44, 481-483	1.9	1
8	Bridging theories for ecosystem stability through structural sensitivity analysis of ecological models in equilibrium		1
7	Smart Nutrient Retention Networks: a novel approach for nutrient conservation through water quality management. *Inland Waters*,1-16	2.4	0
6	Exploring desirable nature futures for Nationaal Park Hollandse Duinen. *Ecosystems and People*, **2022**, 18, 329-347	4.3	0
5	Modelling the spatial dynamics of Maui dolphins using individual-based models. *Ecological Modelling*, **2019**, 402, 59-65	3	
4	Importance of Trait-Related Flexibility for Food-Web Dynamics and the Maintenance of Biodiversity146-163		
3	Assembling the pieces of Lake Victoria's many food webs: reply to Kolding **2013**, 23, 671-5		
2	The Importance of Spatial Scale in the Modeling of Aquatic Ecosystems **2003**, 383-400		
1	Flipping Lakes: Explaining concepts of catchment-scale water management through a serious game. *Limnology and Oceanography: Methods*, **2021**, 19, 443-456	2.6	