Steven F Railsback

List of Publications by Year
in descending order

65 papers	10,613 citations	172457 29 h-index	138484 58 g-index
67 all docs	67 docs citations	67 times ranked	8563 citing authors

#	Article	IF	Citations
1	Suboptimal foraging theory: How inaccurate predictions and approximations can make better models of adaptive behavior. Ecology, 2022, 103, e3721.	3.2	3
2	What We Donâ€™t Know About the Effects of Temperature on Salmonid Growth. Transactions of the American Fisheries Society, 2022, 151, 3-12.	1.4	16
3	Keeping modelling notebooks with TRACE: Good for you and good for environmental research and management support. Environmental Modelling and Software, 2021, 136, 104932.	4.5	19
4	Importance of the Daily Light Cycle in Populationâ€“Habitat Relations: A Simulation Study. Transactions of the American Fisheries Society, 2021, 150, 130-143.	1.4	13
5	Modeling Atlantic salmon (Salmo salar) and brown trout (S. trutta) population responses and interactions under increased minimum flow in a regulated river. Ecological Engineering, 2021, 162, 106182.	3.6	9
6	<scp>InSTREAM</scp> 7: Instream flow assessment and management model for stream trout. River Research and Applications, 2021, 37, 1294-1302.	1.7	13
7	All Fish, All the Time: A Good General Objective for Fish Passage Projects?. Fisheries, 2021, 46, 119-124.	0.8	2
8	Bridging Levels from Individuals to Communities and Ecosystems: Including Adaptive Behavior and Feedbacks in Ecological Theory and Models. Bulletin of the Ecological Society of America, 2020, 101, e01648.	0.2	3
9	Contingent trade-off decisions with feedbacks in cyclical environments: testing alternative theories. Behavioral Ecology, 2020, 31, 1192-1206.	2.2	15
10	The ODD Protocol for Describing Agent-Based and Other Simulation Models: A Second Update to Improve Clarity, Replication, and Structural Realism. Jasss, 2020, 23, .	1.8	349
11	Mechanistic simulations predict that thermal and hydrological effects of climate change on Mediterranean trout cannot be offset by adaptive behaviour, evolution, and increased food production. Science of the Total Environment, 2019, 693, 133648.	8.0	25
12	Ecoâ€evolutionary responses to recreational fishing under different harvest regulations. Ecology and Evolution, 2018, 8, 9600-9613.	1.9	22
13	Why It Is Time to Put PHABSIM Out to Pasture: Response to Comments 1 and 2. Fisheries, 2017, 42, 517-518.	0.8	7
14	Next-Generation Individual-Based Models Integrate Biodiversity and Ecosystems: Yes We Can, and Yes We Must. Ecosystems, 2017, 20, 229-236.	3.4	77
15	Why It Is Time to Put PHABSIM Out to Pasture. Fisheries, 2016, 41, 720-725.	0.8	77
16	InSTREAM-Gen: Modelling eco-evolutionary dynamics of trout populations under anthropogenic environmental change. Ecological Modelling, 2016, 326, 36-53.	2.5	53
17	Modeling potential river management conflicts between frogs and salmonids. Canadian Journal of Fisheries and Aquatic Sciences, 2016, 73, 773-784.	1.4	17
18	New predictions from old theory: Emergent effects of multiple stressors in a model of piscivorous fish. Ecological Modelling, 2016, 326, 54-62.	2.5	12

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19	Legacy effects of wildfire on stream thermal regimes and rainbow trout ecology: an integrated analysis of observation and individual-based models. Freshwater Science, 2015, 34, 1571-1584.	1.8	22
20	Local Variability Mediates Vulnerability of Trout Populations to Land Use and Climate Change. PLoS ONE, 2015, 10, e0135334.	2.5	32
21	The role of the geophysical template and environmental regimes in controlling stream-living trout populations. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 893-901.	1.4	8
22	Effects of Spatial Extent on Modeled Relations between Habitat and Anadromous Salmonid Spawning Success. Transactions of the American Fisheries Society, 2015, 144, 1220-1236.	1.4	3
23	Making Predictions in a Changing World: The Benefits of Individual-Based Ecology. BioScience, 2015, 65, 140-150.	4.9	136
24	Facultative anadromy in salmonids: linking habitat, individual life history decisions, and population-level consequences. Canadian Journal of Fisheries and Aquatic Sciences, 2014, 71, 1270-1278.	1.4	12
25	Effects of Streamflow Diversion on a Fish Population: Combining Empirical Data and Individual-Based Models in a Site-Specific Evaluation. North American Journal of Fisheries Management, 2014, 34, 247-257.	1.0	15
26	Feeding modes in stream salmonid population models: is drift feeding the whole story?. Environmental Biology of Fishes, 2014, 97, 615-625.	1.0	32
27	Towards better modelling and decision support: Documenting model development, testing, and analysis using TRACE. Ecological Modelling, 2014, 280, 129-139.	2.5	185
28	Effects of land use on bird populations and pest control services on coffee farms. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6109-6114.	7.1	61
29	Contrast of Degraded and Restored Stream Habitat Using an Individual-Based Salmon Model. North American Journal of Fisheries Management, 2013, 33, 384-399.	1.0	45
30	Trait-mediated trophic interactions: is foraging theory keeping up?. Trends in Ecology and Evolution, 2013, 28, 119-125.	8.7	51
31	Pattern-oriented modelling: a â€˜multi-scopeâ€™ for predictive systems ecology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 298-310.	4.0	322
32	EFFECTS OF PASSAGE BARRIERS ON DEMOGRAPHICS AND STABILITY PROPERTIES OF A VIRTUAL TROUT POPULATION. River Research and Applications, 2012, 28, 479-489.	1.7	15
33	Designing, Formulating, and Communicating Agent-Based Models. , 2012, , 361-377.		24
34	Importance of fish behaviour in modelling conservation problems: food limitation as an example. Journal of Fish Biology, 2011, 79, 1648-1662.	1.6	22
35	Pattern-oriented modeling of bird foraging and pest control in coffee farms. Ecological Modelling, 2011, 222, 3305-3319.	2.5	40
36	The ODD protocol: A review and first update. Ecological Modelling, 2010, 221, 2760-2768.	2.5	1,913

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37	Model the Real, Artificial, or Stylized Iguana? Artificial Life and Adaptive Behavior Can Be Linked Through Pattern-Oriented Modeling. Adaptive Behavior, 2009, 17, 309-312.	1.9	0
38	Exploring the Persistence of Stream-Dwelling Trout Populations under Alternative Real-World Turbidity Regimes with an Individual-Based Model. Transactions of the American Fisheries Society, 2009, 138, 348-360.	1.4	33
39	Projecting Cumulative Benefits of Multiple River Restoration Projects: An Example from the Sacramento-San Joaquin River System in California. Environmental Management, 2008, 42, 933-945.	2.7	41
40	Demonstration Flow Assessment: Judgment and Visual Observation in Instream Flow Studies. Fisheries, 2008, 33, 217-227.	0.8	12
41	Estimating Multi-Factor Cumulative Watershed Effects on Fish Populations with an Individual-Based Model. Fisheries, 2007, 32, 292-298.	0.8	24
42	Agent-Based Models in Ecology: Patterns and Alternative Theories of Adaptive Behaviour. , 2006, , 139-152.		20
43	Agent-based Simulation Platforms: Review and Development Recommendations. Simulation, 2006, 82, 609-623.	1.8	582
44	A physical habitat model for predicting the effects of flow fluctuations in nursery habitats of the endangered Colorado pikeminnow (Ptychocheilus lucius). River Research and Applications, 2006, 22, 1125-1142.	1.7	22
45	A standard protocol for describing individual-based and agent-based models. Ecological Modelling, 2006, 198, 115-126.	2.5	2,219
46	Pattern-Oriented Modeling of Agent-Based Complex Systems: Lessons from Ecology. Science, 2005, 310, 987-991.	12.6	1,685
47	TESTS OF THEORY FOR DIEL VARIATION IN SALMONID FEEDING ACTIVITY AND HABITAT USE. Ecology, 2005, 86, 947-959.	3.2	85
48	Individual-based Modeling and Ecology. , 2005, , .		985
49	WHAT CAN HABITAT PREFERENCE MODELS TELL US? TESTS USING A VIRTUAL TROUT POPULATION. , 2003, 13, 1580-1594.		92
50	Analysis of Habitat-Selection Rules Using an Individual-Based Model. Ecology, 2002, 83, 1817.	3.2	14
51	ANALYSIS OF HABITAT-SELECTION RULES USING ANINDIVIDUAL-BASED MODEL. Ecology, 2002, 83, 1817-1830.	3.2	174
52	SOFTWARE ENGINEERING CONSIDERATIONS FOR INDIVIDUALâ€BASED MODELS. Natural Resource Modelling, 2002, 15, 5-22.	2.0	18
53	POPULATIONâ€LEVEL ANALYSIS AND VALIDATION OF AN INDIVIDUALâ€BASED CUTTHROAT TROUT MODEL. Natural Resource Modelling, 2002, 15, 83-110.	2.0	31
54	Population-level analysis and validation of an individual-based cutthroat trout model. , 2002, 15, 83-110.		4

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55	Concepts from complex adaptive systems as a framework for individual-based modelling. Ecological Modelling, 2001, 139, 47-62.	2.5	182
56	Design and Performance of a Channel Reconstruction Project in a Coastal California Gravel-Bed Stream. Environmental Management, 2001, 28, 761-776.	2.7	142
57	GETTING â€œRESULTSâ€• THE PATTERNâ€ORIENTED APPROACH TO ANALYZING NATURAL SYSTEMS WITH INDIVIDUALâ€BASED MODELS. Natural Resource Modelling, 2001, 14, 465-475.	2.0	33
58	Bioenergetics Modeling of Stream Trout Growth: Temperature and Food Consumption Effects. Transactions of the American Fisheries Society, 1999, 128, 241-256.	1.4	142
59	Movement rules for individual-based models of stream fish. Ecological Modelling, 1999, 123, 73-89.	2.5	164
60	Individual-based model of sympatric populations of brown and rainbow trout for instream flow assessment: model description and calibration. Ecological Modelling, 1998, 110, 175-207.	2.5	124
61	Closure to â€œ Aeration at Ohio River Basin Navigation Dams â€•by Steven F. Railsback, John M. Bownds, Michael J. Sale, Martha M. Stevens, and George H. Taylor (March/April, 1990, Vol. 116, No. 2). Journal of Environmental Engineering, ASCE, 1992, 118, 447-451.	1.4	0
62	Modeling alternatives for basin-level hydropower development: 1. Optimization methods and applications. Water Resources Research, 1992, 28, 2581-2590.	4.2	4
63	Use of a reservoir water quality model to simulate global climate change effects on fish habitat. Climatic Change, 1992, 20, 277-296.	3.6	31
64	Discussion of â€œ Indexing Gas Transfer in Selfâ€Aerated Flows â€•by John S. Gulliver, John R. Thene, and Alan J. Rindels (June, 1990, Vol. 116, No. 3). Journal of Environmental Engineering, ASCE, 1991, 117, 866-867.	1.4	1
65	Aeration at Ohio River Basin Navigation Dams. Journal of Environmental Engineering, ASCE, 1990, 116, 361-375.	1.4	3