Atte Moilanen

List of Publications by Year
in descending order

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139 papers	13,460 citations	19657 61 h-index	24258 110 g-index
141 all docs	141 docs citations	141 times ranked	11766 citing authors

#	Article	IF	Citations
1	SIMPLE CONNECTIVITY MEASURES IN SPATIAL ECOLOGY. Ecology, 2002, 83, 1131-1145.	3.2	657
2	Prioritizing multiple-use landscapes for conservation: methods for large multi-species planning problems. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1885-1891.	2.6	465
3	Faustian bargains? Restoration realities in the context of biodiversity offset policies. Biological Conservation, 2012, 155, 141-148.	4.1	394
4	METAPOPULATION DYNAMICS: EFFECTS OF HABITAT QUALITY AND LANDSCAPE STRUCTURE. Ecology, 1998, 79, 2503-2515.	3.2	386
5	Design of reserve networks and the persistence of biodiversity. Trends in Ecology and Evolution, 2001, 16, 242-248.	8.7	386
6	Landscape Zonation, benefit functions and target-based planning: Unifying reserve selection strategies. Biological Conservation, 2007, 134, 571-579.	4.1	369
7	Climate change, connectivity and conservation decision making: back to basics. Journal of Applied Ecology, 2009, 46, 964-969.	4.0	360
8	Core concepts of spatial prioritisation in systematic conservation planning. Biological Reviews, 2013, 88, 443-464.	10.4	319
9	Global protected area expansion is compromised by projected land-use and parochialism. Nature, 2014, 516, 383-386.	27.8	312
10	Global synthesis of conservation studies reveals the importance of small habitat patches for biodiversity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 909-914.	7.1	312
11	Methods and workflow for spatial conservation prioritization using Zonation. Environmental Modelling and Software, 2013, 47, 128-137.	4.5	309
12	Minimum Viable Metapopulation Size. American Naturalist, 1996, 147, 527-541.	2.1	303
13	ESTIMATING THE PARAMETERS OF SURVIVAL AND MIGRATION OF INDIVIDUALS IN METAPOPULATIONS. Ecology, 2000, 81, 239-251.	3.2	263
14	Population connectivity: recent advances and new perspectives. Landscape Ecology, 2013, 28, 165-185.	4.2	262
15	Social Media Data Can Be Used to Understand Touristsâ€™ Preferences for Natureâ€Based Experiences in Protected Areas. Conservation Letters, 2018, 11, e12343.	5.7	246
16	Habitat area, quality and connectivity: striking the balance for efficient conservation. Journal of Applied Ecology, 2011, 48, 148-152.	4.0	241
17	On the use of connectivity measures in spatial ecology. Oikos, 2001, 95, 147-151.	2.7	236
18	How Much Compensation is Enough? A Framework for Incorporating Uncertainty and Time Discounting When Calculating Offset Ratios for Impacted Habitat. Restoration Ecology, 2009, 17, 470-478.	2.9	198

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19	The Quantitative Incidence Function Model and Persistence of an Endangered Butterfly Metapopulation. Conservation Biology, 1996, 10, 578-590.	4.7	184
20	A method for spatial freshwater conservation prioritization. Freshwater Biology, 2008, 53, 577-592.	2.4	184
21	Balancing alternative land uses in conservation prioritization. , 2011, 21, 1419-1426.		183
22	Optimizing resiliency of reserve networks to climate change: multispecies conservation planning in the Pacific Northwest, USA. Global Change Biology, 2010, 16, 891-904.	9.5	181
23	Combining probabilities of occurrence with spatial reserve design. Journal of Applied Ecology, 2004, 41, 252-262.	4.0	175
24	Longâ€Term Dynamics in a Metapopulation of the American Pika. American Naturalist, 1998, 152, 530-542.	2.1	171
25	Novel methods for the design and evaluation of marine protected areas in offshore waters. Conservation Letters, 2008, 1, 91-102.	5.7	171
26	Global priorities for national carnivore conservation under land use change. Scientific Reports, 2016, 6, 23814.	3.3	169
27	Delaying conservation actions for improved knowledge: how long should we wait?. Ecology Letters, 2009, 12, 293-301.	6.4	157
28	Implications of empirical data quality to metapopulation model parameter estimation and application. Oikos, 2002, 96, 516-530.	2.7	156
29	PATCH OCCUPANCY MODELS OF METAPOPULATION DYNAMICS: EFFICIENT PARAMETER ESTIMATION USING IMPLICIT STATISTICAL INFERENCE. Ecology, 1999, 80, 1031-1043.	3.2	155
30	Integrating conservation planning and landuse planning in urban landscapes. Landscape and Urban Planning, 2009, 91, 183-194.	7.5	151
31	The Value of Biodiversity in Reserve Selection: Representation, Species Weighting, and Benefit Functions. Conservation Biology, 2005, 19, 2009-2014.	4.7	150
32	Genetic diversity in widespread species is not congruent with species richness in alpine plant communities. Ecology Letters, 2012, 15, 1439-1448.	6.4	135
33	Diminishing return on investment for biodiversity data in conservation planning. Conservation Letters, 2008, 1, 190-198.	5.7	128
34	Conservation Planning with Uncertain Climate Change Projections. PLoS ONE, 2013, 8, e53315.	2.5	127
35	Integrating plantâ€•and animalâ€based perspectives for more effective restoration of biodiversity. Frontiers in Ecology and the Environment, 2016, 14, 37-45.	4.0	126
36	On the limitations of graphâ€theoretic connectivity in spatial ecology and conservation. Journal of Applied Ecology, 2011, 48, 1543-1547.	4.0	119

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37	SPOMSIM: software for stochastic patch occupancy models of metapopulation dynamics. Ecological Modelling, 2004, 179, 533-550.	2.5	113
38	Spatial prioritization of conservation management. Conservation Letters, 2011, 4, 383-393.	5.7	105
39	Metapopulation dynamics of the bog fritillary butterfly: movements between habitat patches. Oikos, 2001, 92, 491-500.	2.7	103
40	Site-Selection Algorithms and Habitat Loss. Conservation Biology, 2003, 17, 1402-1413.	4.7	103
41	SINGLE-SPECIES DYNAMIC SITE SELECTION. , 2002, 12, 913-926.		98
42	Reconciling biodiversity and carbon conservation. Ecology Letters, 2013, 16, 39-47.	6.4	96
43	Planning for robust reserve networks using uncertainty analysis. Ecological Modelling, 2006, 199, 115-124.	2.5	95
44	Matches and mismatches between national and EU-wide priorities: Examining the Natura 2000 network in vertebrate species conservation. Biological Conservation, 2016, 198, 193-201.	4.1	94
45	Habitat Destruction and Coexistence of Competitors in a Spatially Realistic Metapopulation Model. Journal of Animal Ecology, 1995, 64, 141.	2.8	92
46	Uncertainty analysis favours selection of spatially aggregated reserve networks. Biological Conservation, 2006, 129, 427-434.	4.1	91
47	Green Infrastructure Design Based on Spatial Conservation Prioritization and Modeling of Biodiversity Features and Ecosystem Services. Environmental Management, 2016, 57, 251-256.	2.7	88
48	Use of demand for and spatial flow of ecosystem services to identify priority areas. Conservation Biology, 2017, 31, 860-871.	4.7	87
49	A successful communityâ€level strategy for conservation prioritization. Journal of Applied Ecology, 2008, 45, 1436-1445.	4.0	82
50	Applying spatial conservation prioritization software and high-resolution GIS data to a national-scale study in forest conservation. Forest Ecology and Management, 2009, 258, 2439-2449.	3.2	82
51	Ecosystem services and connectivity in spatial conservation prioritization. Landscape Ecology, 2017, 32, 5-14.	4.2	79
52	Uncertainty Analysis for Regional-Scale Reserve Selection. Conservation Biology, 2006, 20, 1688-1697.	4.7	78
53	Treatment of uncertainty in conservation under climate change. Conservation Letters, 2013, 6, 73-85.	5.7	78
54	The Boundary-Quality Penalty: a Quantitative Method for Approximating Species Responses to Fragmentation in Reserve Selection. Conservation Biology, 2007, 21, 355-364.	4.7	76

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55	Identification of policies for a sustainable legal trade in rhinoceros horn based on population projection and socioeconomic models. Conservation Biology, 2015, 29, 545-555.	4.7	73
56	Replacement cost: A practical measure of site value for cost-effective reserve planning. Biological Conservation, 2006, 132, 336-342.	4.1	72
57	Incorporating consumerâ€“resource spatial interactions in reserve design. Ecological Modelling, 2009, 220, 725-733.	2.5	71
58	Identification of ecological networks for land-use planning with spatial conservation prioritization. Landscape Ecology, 2020, 35, 353-371.	4.2	71
59	matesoft: a program for deducing parental genotypes and estimating mating system statistics in haplodiploid species. Molecular Ecology Notes, 2004, 4, 795-797.	1.7	70
60	Metapopulation responses to patch connectivity and quality are masked by successional habitat dynamics. Ecology, 2009, 90, 1608-1619.	3.2	70
61	Species richness as criterion for global conservation area placement leads to large losses in coverage of biodiversity. Diversity and Distributions, 2017, 23, 715-726.	4.1	68
62	Kernel-based home range method for data with irregular sampling intervals. Ecological Modelling, 2006, 194, 405-413.	2.5	65
63	The equilibrium assumption in estimating the parameters of metapopulation models. Journal of Animal Ecology, 2000, 69, 143-153.	2.8	62
64	Integrating biodiversity, ecosystem services and socio-economic data to identify priority areas and landowners for conservation actions at the national scale. Biological Conservation, 2017, 206, 56-64.	4.1	62
65	Priority areas for conservation of Old World vultures. Conservation Biology, 2019, 33, 1056-1065.	4.7	62
66	Connectivity, Probabilities and Persistence: Comparing Reserve Selection Strategies. Biodiversity and Conservation, 2006, 15, 899-919.	2.6	61
67	A method for calculating minimum biodiversity offset multipliers accounting for time discounting, additionality and permanence. Methods in Ecology and Evolution, 2014, 5, 1247-1254.	5.2	61
68	Global change synergies and tradeâ€offs between renewable energy and biodiversity. GCB Bioenergy, 2016, 8, 941-951.	5.6	61
69	Identifying global centers of unsustainable commercial harvesting of species. Science Advances, 2019, 5, eaau2879.	10.3	61
70	Improving the surrogacy effectiveness of charismatic megafauna with wellâ€surveyed taxonomic groups and habitat types. Journal of Applied Ecology, 2014, 51, 281-288.	4.0	59
71	Fifteen operationally important decisions in the planning of biodiversity offsets. Biological Conservation, 2018, 227, 112-120.	4.1	57
72	MIGRATION AND SURVIVAL OF PARNASSIUS SMINTHEUS: DETECTING EFFECTS OF HABITAT FOR INDIVIDUAL BUTTERFLIES. , 2004, 14, 1526-1534.		56

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73	Effects of Connectivity and Spatial Resolution of Analyses on Conservation Prioritization across Large Extents. Conservation Biology, 2012, 26, 294-304.	4.7	55
74	Securing the Conservation of Biodiversity across Administrative Levels and Spatial, Temporal, and Ecological Scales â€“ Research Needs and Approaches of the SCALES Project. Gaia, 2010, 19, 187-193.	0.7	54
75	Administrative regions in conservation: Balancing local priorities with regional to global preferences in spatial planning. Biological Conservation, 2011, 144, 1719-1725.	4.1	54
76	Conservation Businesses and Conservation Planning in a Biological Diversity Hotspot. Conservation Biology, 2013, 27, 808-820.	4.7	54
77	Reserve Selection Using Nonlinear Species Distribution Models. American Naturalist, 2005, 165, 695-706.	2.1	53
78	Transparent planning for biodiversity and development in the urban fringe. Landscape and Urban Planning, 2012, 108, 140-149.	7.5	52
79	Not all data are equal: Influence of data type and amount in spatial conservation prioritisation. Methods in Ecology and Evolution, 2018, 9, 2249-2261.	5.2	52
80	Searching for Most Parsimonious Trees with Simulated Evolutionary Optimization. Cladistics, 1999, 15, 39-50.	3.3	50
81	Use of Inverse Spatial Conservation Prioritization to Avoid Biological Diversity Loss Outside Protected Areas. Conservation Biology, 2013, 27, 1294-1303.	4.7	47
82	Spatial characteristics of species distributions as drivers in conservation prioritization. Methods in Ecology and Evolution, 2018, 9, 1121-1132.	5.2	46
83	Edge artefacts and lost performance in national versus continental conservation priority areas. Diversity and Distributions, 2013, 19, 171-183.	4.1	44
84	Evaluation, Gap Analysis, and Potential Expansion of the Finnish Marine Protected Area Network. Frontiers in Marine Science, 2018, 5, .	2.5	44
85	Assessing replacement cost of conservation areas: How does habitat loss influence priorities?. Biological Conservation, 2009, 142, 575-585.	4.1	43
86	Generalized Complementarity and Mapping of the Concepts of Systematic Conservation Planning. Conservation Biology, 2008, 22, 1655-1658.	4.7	41
87	Identification of top priority areas and management landscapes from a national Natura 2000 network. Environmental Science and Policy, 2013, 27, 11-20.	4.9	41
88	A method for building corridors in spatial conservation prioritization. Landscape Ecology, 2014, 29, 789-801.	4.2	39
89	Using key biodiversity areas to guide effective expansion of the global protected area network. Global Ecology and Conservation, 2019, 20, e00768.	2.1	39
90	Empirical evidence for reduced protection levels across biodiversity features from target-based conservation planning. Biological Conservation, 2012, 153, 187-191.	4.1	38

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91	META-X: Generic Software for Metapopulation Viability Analysis. Biodiversity and Conservation, 2004, 13, 165-188.	2.6	35
92	Setting conservation targets under budgetary constraints. Biological Conservation, 2011, 144, 650-653.	4.1	34
93	Surrogacy and persistence in reserve selection: landscape prioritization for multiple taxa in Britain. Journal of Applied Ecology, 2009, 46, 82-91.	4.0	33
94	Methods for allocation of habitat management, maintenance, restoration and offsetting, when conservation actions have uncertain consequences. Biological Conservation, 2012, 153, 41-50.	4.1	31
95	Implementing Green Infrastructure for the Spatial Planning of Peri-Urban Areas in Geneva, Switzerland. Sustainability, 2020, 12, 1387.	3.2	31
96	Two paths to a suboptimal solution â€“ once more about optimality in reserve selection. Biological Conservation, 2008, 141, 1919-1923.	4.1	30
97	Analyzing fair access to urban green areas using multimodal accessibility measures and spatial prioritization. Applied Geography, 2020, 124, 102320.	3.7	30
98	Managing successional species: Modelling the dependence of heath fritillary populations on the spatial distribution of woodland management. Biological Conservation, 2009, 142, 2743-2751.	4.1	29
99	Accounting for habitat loss rates in sequential reserve selection: Simple methods for large problems. Biological Conservation, 2007, 136, 470-482.	4.1	28
100	Planning impact avoidance and biodiversity offsetting using software for spatial conservation prioritisation. Wildlife Research, 2013, 40, 153.	1.4	28
101	Voluntary non-monetary approaches for implementing conservation. Biological Conservation, 2016, 197, 209-214.	4.1	28
102	Synergies and tradeâ€offs between renewable energy expansion and biodiversity conservation â€“ a crossâ€national multifactor analysis. GCB Bioenergy, 2016, 8, 1191-1200.	5.6	28
103	Quantifying biodiversity trade-offs in the face of widespread renewable and unconventional energy development. Scientific Reports, 2020, 10, 7603.	3.3	28
104	FORUM: Indirect leakage leads to a failure of avoided loss biodiversity offsetting. Journal of Applied Ecology, 2016, 53, 106-111.	4.0	27
105	Spatial conservation prioritization for the East Asian islands: A balanced representation of multitaxon biogeography in a protected area network. Diversity and Distributions, 2019, 25, 414-429.	4.1	26
106	Novel methods for spatial prioritization with applications in conservation, land use planning and ecological impact avoidance. Methods in Ecology and Evolution, 2022, 13, 1062-1072.	5.2	25
107	Threats from urban expansion, agricultural transformation and forest loss on global conservation priority areas. PLoS ONE, 2017, 12, e0188397.	2.5	24
108	Structured analysis of conservation strategies applied to temporary conservation. Biological Conservation, 2014, 170, 188-197.	4.1	23

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109	Coverage of vertebrate species distributions by Important Bird and Biodiversity Areas and Special Protection Areas in the European Union. Biological Conservation, 2016, 202, 1-9.	4.1	23
110	Methods for reserve selection: Interior point search. Biological Conservation, 2005, 124, 485-492.	4.1	22
111	Integrating environmental gap analysis with spatial conservation prioritization: A case study from Victoria, Australia. Journal of Environmental Management, 2012, 112, 240-251.	7.8	22
112	Spatial prioritization for urban Biodiversity Quality using biotope maps and expert opinion. Urban Forestry and Urban Greening, 2020, 49, 126586.	5.3	22
113	Marine connectivity in spatial conservation planning: analogues from the terrestrial realm. Landscape Ecology, 2020, 35, 1021-1034.	4.2	22
114	Three ways to deliver a net positive impact with biodiversity offsets. Conservation Biology, 2021, 35, 197-205.	4.7	22
115	Connectivity and metapopulation dynamics in highly fragmented landscapes. , 2006, , 44-71.		21
116	Developing a spatially explicit modelling and evaluation framework for integrated carbon sequestration and biodiversity conservation: Application in southern Finland. Science of the Total Environment, 2021, 775, 145847.	8.0	18
117	Area-Based Refinement for Selection of Reserve Sites with the Benefit-Function Approach. Conservation Biology, 2007, 21, 527-533.	4.7	17
118	Synergistic effects of climate and land-use change on representation of African bats in priority conservation areas. Ecological Indicators, 2016, 69, 276-283.	6.3	17
119	Searching for Most Parsimonious Trees with Simulated Evolutionary Optimization. Cladistics, 1999, 15, 39-50.	3.3	17
120	RobOff: software for analysis of alternative landâ€use options and conservation actions. Methods in Ecology and Evolution, 2013, 4, 426-432.	5.2	16
121	Simulated Evolutionary Optimization and Local Search: Introduction and Application to Tree Search. Cladistics, 2001, 17, S12-S25.	3.3	15
122	Defining spatial priorities for capercaillie Tetrao urogallus lekking landscape conservation in southâ€central Finland. Wildlife Biology, 2012, 18, 337-353.	1.4	15
123	Use of many low-level conservation targets reduces high-level conservation performance. Ecological Modelling, 2012, 247, 40-47.	2.5	15
124	Optimal conservation resource allocation under variable economic and ecological time discounting rates in boreal forest. Journal of Environmental Management, 2016, 180, 366-374.	7.8	14
125	Metapopulation Dynamics and Reserve Network Design. , 2004, , 541-564.		13
126	Complementarity and Area-Efficiency in the Prioritization of the Global Protected Area Network. PLoS ONE, 2015, 10, e0145231.	2.5	12

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127	Exposing ecological and economic costs of the researchâ€implementation gap and compromises in decision making. Conservation Biology, 2018, 32, 9-17.	4.7	12
128	New performance guarantees for the greedy maximization of submodular set functions. Optimization Letters, 2017, 11, 655-665.	1.6	11
129	A practical method for evaluating spatial biodiversity offset scenarios based on spatial conservation prioritization outputs. Methods in Ecology and Evolution, 2020, 11, 794-803.	5.2	11
130	Where and how to manage: Optimal selection of conservation actions for multiple species.. Biodiversity Informatics, 2008, 5, .	3.0	10
131	Simulated Evolutionary Optimization and Local Search: Introduction and Application to Tree Search. Cladistics, 2001, 17, S12-S25.	3.3	10
132	Examining current or future trade-offs for biodiversity conservation in north-eastern Australia. PLoS ONE, 2017, 12, e0172230.	2.5	10
133	Conceptual and operational perspectives on ecosystem restoration options in the European Union and elsewhere. Journal of Applied Ecology, 2015, 52, 816-819.	4.0	9
134	Variance and Uncertainty in the Expected Number of Occurrences in Reserve Selection. Conservation Biology, 2005, 19, 1663-1667.	4.7	6
135	Approximating the dispersal of multi-species ecological entities such as communities, ecosystems or habitat types. Ecological Modelling, 2013, 259, 24-29.	2.5	6
136	Importance of complementary approaches for efficient vulture conservation: reply to Efrat et al.. Conservation Biology, 2020, 34, 1308-1310.	4.7	5
137	Species composition and turnover models provide robust approximations of biodiversity in marine conservation planning. Ocean and Coastal Management, 2021, 212, 105855.	4.4	3
138	How threats inform conservation planningâ€"A systematic review protocol. PLoS ONE, 2022, 17, e0269107.	2.5	3
139	Green Infrastructure Design Based on Spatial Conservation Prioritization and Modeling of Biodiversity Features and Ecosystem Services. , 2016, 57, 251.		1