Carsten F Dormann

List of Publications by Year
in descending order

144 papers	27,979 citations	25034 57 h-index	11939 134 g-index
164 all docs	164 docs citations	164 times ranked	32461 citing authors

#	Article	IF	Citations
1	Collinearity: a review of methods to deal with it and a simulation study evaluating their performance. Ecography, 2013, 36, 27-46.	4.5	6,250
2	Methods to account for spatial autocorrelation in the analysis of species distributional data: a review. Ecography, 2007, 30, 609-628.	4.5	2,522
3	Landscape moderation of biodiversity patterns and processes â€•eight hypotheses. Biological Reviews, 2012, 87, 661-685.	10.4	1,443
4	The role of biotic interactions in shaping distributions and realised assemblages of species: implications for species distribution modelling. Biological Reviews, 2013, 88, 15-30.	10.4	1,224
5	Indices, Graphs and Null Models: Analyzing Bipartite Ecological Networks. Open Ecology Journal, 2009, 2, 7-24.	2.0	1,201
6	Crossâ€validation strategies for data with temporal, spatial, hierarchical, or phylogenetic structure. Ecography, 2017, 40, 913-929.	4.5	1,092
7	A quantitative review of ecosystem service studies: approaches, shortcomings and the road ahead. Journal of Applied Ecology, 2011, 48, 630-636.	4.0	779
8	Review: Ecological networks â€“ beyond food webs. Journal of Animal Ecology, 2009, 78, 253-269.	2.8	765
9	Standards for distribution models in biodiversity assessments. Science Advances, 2019, 5, eaat4858.	10.3	605
10	Correlation and process in species distribution models: bridging a dichotomy. Journal of Biogeography, 2012, 39, 2119-2131.	3.0	526
11	Effects of incorporating spatial autocorrelation into the analysis of species distribution data. Global Ecology and Biogeography, 2007, 16, 129-138.	5.8	498
12	Spillover of functionally important organisms between managed and natural habitats. Agriculture, Ecosystems and Environment, 2012, 146, 34-43.	5.3	413
13	Outstanding Challenges in the Transferability of Ecological Models. Trends in Ecology and Evolution, 2018, 33, 790-802.	8.7	403
14	Crop pests and predators exhibit inconsistent responses to surrounding landscape composition. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7863-E7870.	7.1	401
15	A method for detecting modules in quantitative bipartite networks. Methods in Ecology and Evolution, 2014, 5, 90-98.	5.2	397
16	A standard protocol for reporting species distribution models. Ecography, 2020, 43, 1261-1277.	4.5	397
17	Promising the future? Global change projections of species distributions. Basic and Applied Ecology, 2007, 8, 387-397.	2.7	391
18	The interplay of landscape composition and configuration: new pathways to manage functional biodiversity and agroecosystem services across Europe. Ecology Letters, 2019, 22, 1083-1094.	6.4	364

#	Article	IF	Citations
19	Towards novel approaches to modelling biotic interactions in multispecies assemblages at large spatial extents. Journal of Biogeography, 2012, 39, 2163-2178.	3.0	340
20	A quantitative index of land-use intensity in grasslands: Integrating mowing, grazing and fertilization. Basic and Applied Ecology, 2012, 13, 207-220.	2.7	325
21	Specialization of Mutualistic Interaction Networks Decreases toward Tropical Latitudes. Current Biology, 2012, 22, 1925-1931.	3.9	290
22	Spatial and Temporal Trends of Global Pollination Benefit. PLoS ONE, 2012, 7, e35954.	2.5	275
23	Stacking species distribution models and adjusting bias by linking them to macroecological models. Global Ecology and Biogeography, 2014, 23, 99-112.	5.8	270
24	Interannual variation in land-use intensity enhances grassland multidiversity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 308-313.	7.1	243
25	Bee diversity effects on pollination depend on functional complementarity and niche shifts. Ecology, 2013, 94, 2042-2054.	3.2	232
26	Spatial validation reveals poor predictive performance of large-scale ecological mapping models. Nature Communications, 2020, 11, 4540.	12.8	232
27	Biotic interactions in species distribution modelling: 10 questions to guide interpretation and avoid false conclusions. Global Ecology and Biogeography, 2018, 27, 1004-1016.	5.8	211
28	Model averaging in ecology: a review of Bayesian, informationâ€theoretic, and tactical approaches for predictive inference. Ecological Monographs, 2018, 88, 485-504.	5.4	209
29	Expansion of mass-flowering crops leads to transient pollinator dilution and reduced wild plant pollination. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 3444-3451.	2.6	199
30	Ecological networks are more sensitive to plant than to animal extinction under climate change. Nature Communications, 2016, 7, 13965.	12.8	180
31	Mass-flowering crops enhance wild bee abundance. Oecologia, 2013, 172, 477-484.	2.0	179
32	COMPONENTS OF UNCERTAINTY IN SPECIES DISTRIBUTION ANALYSIS: A CASE STUDY OF THE GREAT GREY SHRIKE. Ecology, 2008, 89, 3371-3386.	3.2	178
33	The <scp>PREDICTS</scp> database: a global database of how local terrestrial biodiversity responds to human impacts. Ecology and Evolution, 2014, 4, 4701-4735.	1.9	178
34	Current global risks to marine mammals: Taking stock of the threats. Biological Conservation, 2018, 221, 44-58.	4.1	177
35	The potential for indirect effects between coâ€flowering plants via shared pollinators depends on resource abundance, accessibility and relatedness. Ecology Letters, 2014, 17, 1389-1399.	6.4	172
36	What's on the horizon for macroecology?. Ecography, 2012, 35, 673-683.	4.5	166

#	Article	IF	Citations
37	Species abundance distributions and richness estimations in fungal metagenomics - lessons learned from community ecology. Molecular Ecology, 2011, 20, 275-285.	3.9	158
38	Identifying Causes of Patterns in Ecological Networks: Opportunities and Limitations. Annual Review of Ecology, Evolution, and Systematics, 2017, 48, 559-584.	8.3	152
39	Effects of landscape structure and landâ€use intensity on similarity of plant and animal communities. Global Ecology and Biogeography, 2007, 16, 774-787.	5.8	151
40	Ecological, historical and evolutionary determinants of modularity in weighted seedâ€dispersal networks. Ecology Letters, 2014, 17, 454-463.	6.4	150
41	Static species distribution models in dynamically changing systems: how good can predictions really be?. Ecography, 2009, 32, 733-744.	4.5	121
42	Food web structure and biocontrol in a four-trophic level system across a landscape complexity gradient. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2946-2953.	2.6	119
43	Predator richness increases the effect of prey diversity on prey yield. Nature Communications, 2012, 3, 1305.	12.8	116
44	The former Iron Curtain still drives biodiversityâ€“profit trade-offs in German agriculture. Nature Ecology and Evolution, 2017, 1, 1279-1284.	7.8	114
45	Landscape elements as potential barriers and corridors for bees, wasps and parasitoids. Biological Conservation, 2011, 144, 1816-1825.	4.1	107
46	Set-aside management: How do succession, sowing patterns and landscape context affect biodiversity?. Agriculture, Ecosystems and Environment, 2011, 143, 37-44.	5.3	105
47	Assessing the validity of autologistic regression. Ecological Modelling, 2007, 207, 234-242.	2.5	104
48	EDITOR'S CHOICE: REVIEW: Effects of land use on plant diversity â€“ A global metaâ€analysis. Journal of Applied Ecology, 2014, 51, 1690-1700.	4.0	88
49	Prediction uncertainty of environmental change effects on temperate European biodiversity. Ecology Letters, 2008, 11, 235-244.	6.4	79
50	Blind spots in ecosystem services research and challenges for implementation. Regional Environmental Change, 2019, 19, 2151-2172.	2.9	77
51	The influence of floral traits on specialization and modularity of plantâ€“pollinator networks in a biodiversity hotspot in the Peruvian Andes. Annals of Botany, 2016, 118, 415-429.	2.9	73
52	TaqMan Real-Time PCR Assays To Assess Arbuscular Mycorrhizal Responses to Field Manipulation of Grassland Biodiversity: Effects of Soil Characteristics, Plant Species Richness, and Functional Traits. Applied and Environmental Microbiology, 2010, 76, 3765-3775.	3.1	72
53	Less than eight (and a half) misconceptions of spatial analysis. Journal of Biogeography, 2012, 39, 995-998.	3.0	72
54	On managing the red mason bee (Osmia bicornis) in apple orchards. Apidologie, 2011, 42, 564.	2.0	67

#	Article	IF	Citations
55	Temporal scaleâ€dependence of plantâ€“pollinator networks. Oikos, 2020, 129, 1289-1302.	2.7	66
56	Seeing through the static: the temporal dimension of plantâ€“animal mutualistic interactions. Ecology Letters, 2021, 24, 149-161.	6.4	66
57	Climatic niche evolution and species diversification in the <scp>C</scp>ape flora, <scp>S</scp>outh <scp>A</scp>frica. Journal of Biogeography, 2012, 39, 2201-2211.	3.0	65
58	Application of species richness estimators for the assessment of fungal diversity. FEMS Microbiology Letters, 2008, 282, 205-213.	1.8	64
59	Recruitment, growth and recovery of commercial tree species over 30 years following logging and thinning in a tropical rain forest. Forest Ecology and Management, 2017, 385, 225-235.	3.2	64
60	â€œMind the gap!â€•â€“ How well does Natura 2000 cover species of European interest?. Nature Conservation, 0, 3, 45-62.	0.0	63
61	African elephant poaching rates correlate with local poverty, national corruption and global ivory price. Nature Communications, 2019, 10, 2242.	12.8	63
62	Wrong, but useful: regional species distribution models may not be improved by rangeâ€wide data under biased sampling. Ecology and Evolution, 2018, 8, 2196-2206.	1.9	61
63	Experimental evidence rejects pairwise modelling approach to coexistence in plant communities. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1279-1285.	2.6	56
64	Evaluating the effectiveness of retention forestry to enhance biodiversity in production forests of Central Europe using an interdisciplinary, multiâ€scale approach. Ecology and Evolution, 2020, 10, 1489-1509.	1.9	56
65	Evolution of climate niches in European mammals?. Biology Letters, 2010, 6, 229-232.	2.3	54
66	Medium-term dynamics of tree species composition in response to silvicultural intervention intensities in a tropical rain forest. Biological Conservation, 2015, 191, 577-586.	4.1	54
67	An evidence assessment tool for ecosystem services and conservation studies. Ecological Applications, 2016, 26, 1295-1301.	3.8	54
68	LinnÃ©â€™s floral clock is slow without pollinators â€“ flower closure and plantâ€pollinator interaction webs. Ecology Letters, 2011, 14, 896-904.	6.4	53
69	Improved speciesâ€occurrence predictions in dataâ€poor regions: using largeâ€scale data and bias correction with downâ€weighted Poisson regression and Maxent. Ecography, 2018, 41, 1161-1172.	4.5	53
70	Plant species richness increases with light availability, but not variability, in temperate forests understorey. BMC Ecology, 2020, 20, 43.	3.0	53
71	Competition and herbivory during salt marsh succession: the importance of forb growth strategy. Journal of Ecology, 2000, 88, 571-583.	4.0	52
72	Facilitation and competition in the high Arctic: the importance of the experimental approach. Acta Oecologica, 2002, 23, 297-301.	1.1	50

#	Article	IF	Citations
73	Quantifying forest structural diversity based on large-scale inventory data: a new approach to support biodiversity monitoring. Forest Ecosystems, 2018, 5, .	3.1	50
74	Microsite conditions dominate habitat selection of the red mason bee (Osmia bicornis, Hymenoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 T Planning, 2011, 103, 15-23.	7.5	48
75	Accounting for geographical variation in speciesâ€“area relationships improves the prediction of plant species richness at the global scale. Journal of Biogeography, 2014, 41, 261-273.	3.0	45
76	The responses of grassland plants to experimentally simulated climate change depend on land use and region. Global Change Biology, 2012, 18, 127-137.	9.5	43
77	Fragmentation of nest and foraging habitat affects time budgets of solitary bees, their fitness and pollination services, depending on traits: Results from an individual-based model. PLoS ONE, 2018, 13, e0188269.	2.5	43
78	Effects of warming and drought on potential N₂O emissions and denitrifying bacteria abundance in grasslands with different land-use. FEMS Microbiology Ecology, 2015, 91, fiv066.	2.7	41
79	Decaying trees improve nesting opportunities for cavityâ€nesting birds in temperate and boreal forests: A metaâ€analysis and implications for retention forestry. Ecology and Evolution, 2018, 8, 8616-8626.	1.9	41
80	Neighbour identity modifies effects of elevated temperature on plant performance in the High Arctic. Global Change Biology, 2004, 10, 1587-1598.	9.5	36
81	Insect abundance in managed forests benefits from multi-layered vegetation. Basic and Applied Ecology, 2020, 48, 124-135.	2.7	34
82	Disturbance intensity is a stronger driver of biomass recovery than remaining treeâ€community attributes in a managed Amazonian forest. Journal of Applied Ecology, 2018, 55, 1647-1657.	4.0	33
83	A new model explaining the origin of different topologies in interaction networks. Ecology, 2019, 100, e02796.	3.2	32
84	Cropâ€“noncrop spillover: arable fields affect trophic interactions on wild plants in surrounding habitats. Oecologia, 2011, 166, 433-441.	2.0	31
85	Organic Farming Favours Insect-Pollinated over Non-Insect Pollinated Forbs in Meadows and Wheat Fields. PLoS ONE, 2013, 8, e54818.	2.5	30
86	Forest-edge associated bees benefit from the proportion of tropical forest regardless of its edge length. Biological Conservation, 2018, 220, 149-160.	4.1	29
87	Consequences of manipulations in carbon and nitrogen supply for concentration of anti-herbivore defence compounds inSalix polaris. Ecoscience, 2003, 10, 312-318.	1.4	28
88	Response to Comment on â€œMethods to account for spatial autocorrelation in the analysis of species distributional data: a reviewâ€. Ecography, 2009, 32, 379-381.	4.5	28
89	Flowering, growth and defence in the two sexes: consequences of herbivore exclusion for Salix polaris. Functional Ecology, 2002, 16, 649-656.	3.6	26
90	Measurement and prediction of bark thickness in Picea abies: assessment of accuracy, precision, and sample size requirements. Canadian Journal of Forest Research, 2016, 46, 39-47.	1.7	25

#	Article	IF	Citations
91	Dispersal Ecology Informs Design of Large-Scale Wildlife Corridors. PLoS ONE, 2016, 11, e0162989.	2.5	24
92	Comparison of models for estimating bark thickness of Picea abies in southwest Germany: the role of tree, stand, and environmental factors. Annals of Forest Science, 2017, 74, 1.	2.0	23
93	An efficient method to exploit Li<scp>DAR</scp> data in animal ecology. Methods in Ecology and Evolution, 2018, 9, 893-904.	5.2	23
94	Population density estimates for terrestrial mammal species. Global Ecology and Biogeography, 2022, 31, 978-994.	5.8	23
95	Humpback whales extend their stay in a breeding ground in the Tropical Eastern Pacific. ICES Journal of Marine Science, 2020, 77, 109-118.	2.5	22
96	Mapping water quality-related ecosystem services: concepts and applications for nitrogen retention and pesticide risk reduction. International Journal of Biodiversity Science, Ecosystem Services & Management, 2012, 8, 35-49.	2.9	21
97	Effectiveness of light-reflecting devices: A systematic reanalysis of animal-vehicle collision data. Accident Analysis and Prevention, 2016, 97, 242-260.	5.7	21
98	Consistent set of additive biomass functions for eight tree species in Germany fit by nonlinear seemingly unrelated regression. Annals of Forest Science, 2018, 75, 1.	2.0	21
99	Refuges from fire maintain pollinatorâ€“plant interaction networks. Ecology and Evolution, 2019, 9, 5777-5786.	1.9	21
100	Tree diversity reduces the risk of bark beetle infestation for preferred conifer species, but increases the risk for less preferred hosts. Journal of Ecology, 2021, 109, 2649-2661.	4.0	20
101	Occurrence pattern of Pararge aegeria (Lepidoptera: Nymphalidae) with respect to local habitat suitability, climate and landscape structure. Landscape Ecology, 2006, 21, 989-1001.	4.2	19
102	Spatially autocorrelated training and validation samples inflate performance assessment of convolutional neural networks. ISPRS Open Journal of Photogrammetry and Remote Sensing, 2022, 5, 100018.	3.1	19
103	Modelling the variation of bark thickness within and between European silver fir (Abies alba Mill.) trees in southwest Germany. Forestry, 2018, 91, 283-294.	2.3	18
104	Calibration of probability predictions from machineâ€learning and statistical models. Global Ecology and Biogeography, 2020, 29, 760-765.	5.8	18
105	European agroforestry has no unequivocal effect on biodiversity: a time-cumulative meta-analysis. Bmc Ecology and Evolution, 2021, 21, 193.	1.6	18
106	Influence of Forest Harvest on Nitrate Concentration in Temperate Streamsâ€”A Meta-Analysis. Forests, 2017, 8, 5.	2.1	17
107	Reassessing Neotropical angiosperm distribution patterns based on monographic data: a geometric interpolation approach. Biodiversity and Conservation, 2010, 19, 1523-1546.	2.6	16
108	Does model-free forecasting really outperform the true model?. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3975.	7.1	16

#	Article	IF	Citations
109	Squares of different sizes: effect of geographical projection on model parameter estimates in species distribution modeling. Ecology and Evolution, 2016, 6, 202-211.	1.9	16
110	Detection probabilities for sessile organisms. Ecosphere, 2016, 7, e01546.	2.2	15
111	No evidence for adaptation of two Polygonum viviparum morphotypes of different bulbil characteristics to length of growing season: abundance, biomass and germination. Polar Biology, 2002, 25, 884-890.	1.2	14
112	Does Public Participation Shift German National Park Priorities Away from Nature Conservation?. Environmental Conservation, 2019, 46, 84-91.	1.3	14
113	Cross-Scale Variation in Biodiversity-Environment Links Illustrated by Coastal Sandflat Communities. PLoS ONE, 2015, 10, e0142411.	2.5	14
114	Competition hierarchy, transitivity and additivity: investigating the effect of fertilisation on plantâ€“plant interactions using three common bryophytes. Plant Ecology, 2007, 191, 171-184.	1.6	13
115	Computing AIC for black-box models using generalized degrees of freedom: A comparison with cross-validation. Communications in Statistics Part B: Simulation and Computation, 2018, 47, 1382-1396.	1.2	13
116	Temporal variability of ecological niches: a study on intertidal macrobenthic fauna. Oikos, 2013, 122, 754-760.	2.7	12
117	The influence of camera trap flash type on the behavioural reactions and trapping rates of red deer and roe deer. Remote Sensing in Ecology and Conservation, 2020, 6, 399-410.	4.3	11
118	Parametrische Statistik. , 2013, , .		11
119	Better Model Transfers Require Knowledge of Mechanisms. Trends in Ecology and Evolution, 2019, 34, 489-490.	8.7	10
120	Exploration of Concerns about the Evidence-Based Guideline Approach in Conservation Management: Hints from Medical Practice. Environmental Management, 2020, 66, 435-449.	2.7	9
121	Within-day dynamics of plantâ€“pollinator networks are dominated by early flower closure: an experimental test of network plasticity. Oecologia, 2021, 196, 781-794.	2.0	9
122	Increasing connectivity enhances habitat specialists but simplifies plantâ€“insect food webs. Oecologia, 2021, 195, 539-546.	2.0	9
123	Process, correlation and parameter fitting in species distribution models: a response to Kriticos etÂal. Journal of Biogeography, 2013, 40, 612-613.	3.0	8
124	Choices of abundance currency, community definition and diversity metric control the predictive power of macroecological models of biodiversity. Global Ecology and Biogeography, 2014, 23, 468-478.	5.8	8
125	Quantitative Prediction of Interactions in Bipartite Networks Based on Traits, Abundances, and Phylogeny. American Naturalist, 2022, 199, 841-854.	2.1	8
126	No consistent effect of plant species richness on resistance to simulated climate change for above- or below-ground processes in managed grasslands. BMC Ecology, 2017, 17, 23.	3.0	7

#	Article	IF	Citations
127	Spatial conservation prioritisation in data-poor countries: a quantitative sensitivity analysis using multiple taxa. BMC Ecology, 2020, 20, 35.	3.0	7
128	Co-occurrence patterns and the large-scale spatial structure of benthic communities in seagrass meadows and bare sand. BMC Ecology, 2020, 20, 37.	3.0	7
129	Parametrische Statistik. , 2017, , .		6
130	Synthesize evidence to steer decisions. Nature, 2016, 529, 466-466.	27.8	5
131	Food Webs versus Interaction Networks: Principles, Pitfalls, and Perspectives. , 0, , 9-18.		5
132	Breaking the ecosystem services glass ceiling: realising impact. Regional Environmental Change, 2019, 19, 2261-2274.	2.9	5
133	Community structure and ecological specialization in plantâ€“ant interactions. Journal of Tropical Ecology, 2015, 31, 325-334.	1.1	4
134	Spatial behavior in rehabilitated orangutans in Sumatra: Where do they go?. PLoS ONE, 2019, 14, e0215284.	2.5	2
135	Evidence Ranking Needs to Reflect Causality. Trends in Ecology and Evolution, 2020, 35, 94-95.	8.7	2
136	Curvature of Logsâ€”Development of and Comparison between Different Calculation Approaches. Forests, 2021, 12, 857.	2.1	2
137	Wrong, but useful: regional species distribution models may not be improved by range-wide data under biased sampling. , 2018, 8, 2196.		1
138	Optimal anti-herbivore defence allocation in Salix polaris: doing it the arctic way?. Phytocoenologia, 2002, 32, 517-529.	0.5	1
139	Multiple Regression in R. , 2020, , 227-255.		0
140	Correlation and Association. , 2020, , 65-70.		0
141	Multiple Regression: Regression with Multiple Predictors. , 2020, , 207-226.		0
142	Samples, RandomÂVariablesâ€”Histograms, Density Distribution. , 2020, , 1-12.		0
143	A systematic map of demographic data from elephant populations throughout Africa: implications for poaching and population analyses. Mammal Review, 0, , .	4.8	0
144	Reply to: â€œResearch on agroforestry systems and biodiversity conservation: what can we conclude so far and what should we improve?â€•by Boinot et al. 2022. Bmc Ecology and Evolution, 2022, 22, 65.	1.6	0