Rachael Winfree

List of Publications by Year
in descending order

125 papers	20,885 citations	26567 56 h-index	22102 113 g-index
152 all docs	152 docs citations	152 times ranked	16225 citing authors

#	Article	IF	Citations
1	How many flowering plants are pollinated by animals?. Oikos, 2011, 120, 321-326.	1.2	2,328
2	Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance. Science, 2013, 339, 1608-1611.	6.0	1,767
3	Bee foraging ranges and their relationship to body size. Oecologia, 2007, 153, 589-596.	0.9	1,269
4	Pollination and other ecosystem services produced by mobile organisms: a conceptual framework for the effects of land-use change. Ecology Letters, 2007, 10, 299-314.	3.0	1,096
5	A global quantitative synthesis of local and landscape effects on wild bee pollinators in agroecosystems. Ecology Letters, 2013, 16, 584-599.	3.0	875
6	A metaâ€analysis of bees' responses to anthropogenic disturbance. Ecology, 2009, 90, 2068-2076.	1.5	739
7	Stability of pollination services decreases with isolation from natural areas despite honey bee visits. Ecology Letters, 2011, 14, 1062-1072.	3.0	681
8	Delivery of crop pollination services is an insufficient argument for wild pollinator conservation. Nature Communications, 2015, 6, 7414.	5.8	656
9	Non-bee insects are important contributors to global crop pollination. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 146-151.	3.3	618
10	Abundance of common species, not species richness, drives delivery of a realâ€world ecosystem service. Ecology Letters, 2015, 18, 626-635.	3.0	468
11	Historical changes in northeastern US bee pollinators related to shared ecological traits. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4656-4660.	3.3	432
12	Native Pollinators in Anthropogenic Habitats. Annual Review of Ecology, Evolution, and Systematics, 2011, 42, 1-22.	3.8	429
13	Climate-associated phenological advances in bee pollinators and bee-pollinated plants. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20645-20649.	3.3	402
14	Native bees provide insurance against ongoing honey bee losses. Ecology Letters, 2007, 10, 1105-1113.	3.0	401
15	From research to action: enhancing crop yield through wild pollinators. Frontiers in Ecology and the Environment, 2014, 12, 439-447.	1.9	363
16	Wild bee pollinators provide the majority of crop visitation across landâ€use gradients in New Jersey and Pennsylvania, USA. Journal of Applied Ecology, 2008, 45, 793-802.	1.9	352
17	Effect of Human Disturbance on Bee Communities in a Forested Ecosystem. Conservation Biology, 2007, 21, 213-223.	2.4	346
18	Robust estimation of microbial diversity in theory and in practice. ISME Journal, 2013, 7, 1092-1101.	4.4	321

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19	Dynamical resonance can account for seasonality of influenza epidemics. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16915-16916.	3.3	311
20	Modelling pollination services across agricultural landscapes. Annals of Botany, 2009, 103, 1589-1600.	1.4	309
21	Reconnecting plants and pollinators: challenges in the restoration of pollination mutualisms. Trends in Plant Science, 2011, 16, 4-12.	4.3	278
22	Backwards bifurcations and catastrophe in simple models of fatal diseases. Journal of Mathematical Biology, 1998, 36, 227-248.	0.8	269
23	A global synthesis of the effects of diversified farming systems on arthropod diversity within fields and across agricultural landscapes. Global Change Biology, 2017, 23, 4946-4957.	4.2	259
24	A conceptual guide to measuring species diversity. Oikos, 2021, 130, 321-338.	1.2	246
25	The conservation and restoration of wild bees. Annals of the New York Academy of Sciences, 2010, 1195, 169-197.	1.8	244
26	Mortality due to Influenza in the United Statesâ€”An Annualized Regression Approach Using Multiple-Cause Mortality Data. American Journal of Epidemiology, 2006, 163, 181-187.	1.6	230
27	Species turnover promotes the importance of bee diversity for crop pollination at regional scales. Science, 2018, 359, 791-793.	6.0	220
28	SCALING FROM TREES TO FORESTS: TRACTABLE MACROSCOPIC EQUATIONS FOR FOREST DYNAMICS. Ecological Monographs, 2008, 78, 523-545.	2.4	208
29	Are ecosystem services stabilized by differences among species? A test using crop pollination. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 229-237.	1.2	203
30	Urban drivers of plantâ€pollinator interactions. Functional Ecology, 2015, 29, 879-888.	1.7	199
31	Modeling shield immunity to reduce COVID-19 epidemic spread. Nature Medicine, 2020, 26, 849-854.	15.2	196
32	Variation in gut microbial communities and its association with pathogen infection in wild bumble bees (<i>Bombus</i>). ISME Journal, 2014, 8, 2369-2379.	4.4	193
33	Biodiversity ensures plantâ€“pollinator phenological synchrony against climate change. Ecology Letters, 2013, 16, 1331-1338.	3.0	184
34	Valuing pollination services to agriculture. Ecological Economics, 2011, 71, 80-88.	2.9	168
35	Complementary habitat use by wild bees in agroâ€natural landscapes. Ecological Applications, 2012, 22, 1535-1546.	1.8	168
36	Native bees buffer the negative impact of climate warming on honey bee pollination of watermelon crops. Global Change Biology, 2013, 19, 3103-3110.	4.2	133

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37	Pollinator body size mediates the scale at which land use drives crop pollination services. Journal of Applied Ecology, 2014, 51, 440-449.	1.9	131
38	The time scale of asymptomatic transmission affects estimates of epidemic potential in the COVID-19 outbreak. Epidemics, 2020, 31, 100392.	1.5	129
39	Awareness-driven behavior changes can shift the shape of epidemics away from peaks and toward plateaus, shoulders, and oscillations. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32764-32771.	3.3	120
40	Bees in disturbed habitats use, but do not prefer, alien plants. Basic and Applied Ecology, 2011, 12, 332-341.	1.2	115
41	MARINE RESERVE DESIGN AND THE EVOLUTION OF SIZE AT MATURATION IN HARVESTED FISH. , 2005, 15, 882-901.		112
42	I can see clearly now: Reinterpreting statistical significance. Methods in Ecology and Evolution, 2019, 10, 756-759.	2.2	107
43	Reconciling early-outbreak estimates of the basic reproductive number and its uncertainty: framework and applications to the novel coronavirus (SARS-CoV-2) outbreak. Journal of the Royal Society Interface, 2020, 17, 20200144.	1.5	103
44	Forest bees are replaced in agricultural and urban landscapes by native species with different phenologies and lifeâ€history traits. Global Change Biology, 2018, 24, 287-296.	4.2	99
45	Testing Simple Indices of Habitat Proximity. American Naturalist, 2005, 165, 707-717.	1.0	94
46	Modeling Post-death Transmission of Ebola: Challenges for Inference and Opportunities for Control. Scientific Reports, 2015, 5, 8751.	1.6	93
47	Alternative stable states in hostâ€“phage dynamics. Theoretical Ecology, 2008, 1, 13-19.	0.4	92
48	Cuckoos, cowbirds and the persistence of brood parasitism. Trends in Ecology and Evolution, 1999, 14, 338-343.	4.2	90
49	Causes of variation in wild bee responses to anthropogenic drivers. Current Opinion in Insect Science, 2015, 10, 104-109.	2.2	89
50	The Allometry of Bee Proboscis Length and Its Uses in Ecology. PLoS ONE, 2016, 11, e0151482.	1.1	86
51	Local habitat characteristics but not landscape urbanization drive pollinator visitation and native plant pollination in forest remnants. Biological Conservation, 2013, 160, 10-18.	1.9	85
52	Response diversity to land use occurs but does not consistently stabilise ecosystem services provided by native pollinators. Ecology Letters, 2013, 16, 903-911.	3.0	80
53	Reassessment of HIV-1 Acute Phase Infectivity: Accounting for Heterogeneity and Study Design with Simulated Cohorts. PLoS Medicine, 2015, 12, e1001801.	3.9	75
54	Vaccinating to Protect a Vulnerable Subpopulation. PLoS Medicine, 2007, 4, e174.	3.9	72

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55	Intrinsic and realized generation intervals in infectious-disease transmission. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20152026.	1.2	70
56	Lysis, lysogeny and virusâ€“microbe ratios. Nature, 2017, 549, E1-E3.	13.7	69
57	On the inconsistency of pollinator species traits for predicting either response to landâ€use change or functional contribution. Oikos, 2018, 127, 306-315.	1.2	68
58	Seeing through the static: the temporal dimension of plantâ€“animal mutualistic interactions. Ecology Letters, 2021, 24, 149-161.	3.0	66
59	Lack of Pollinators Limits Fruit Production in Commercial Blueberry (<I>Vaccinium) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 5	0.7	64
60	Statistical power and validity of Ebola vaccine trials in Sierra Leone: a simulation study of trial design and analysis. Lancet Infectious Diseases, The, 2015, 15, 703-710.	4.6	64
61	Forward-looking serial intervals correctly link epidemic growth to reproduction numbers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	54
62	A practical generation-interval-based approach to inferring the strength of epidemics from their speed. Epidemics, 2019, 27, 12-18.	1.5	51
63	Species Abundance, Not Diet Breadth, Drives the Persistence of the Most Linked Pollinators as Plant-Pollinator Networks Disassemble. American Naturalist, 2014, 183, 600-611.	1.0	49
64	Wild bee community change over a 26â€year chronosequence of restored tallgrass prairie. Restoration Ecology, 2017, 25, 650-660.	1.4	46
65	Male and female bees show large differences in floral preference. PLoS ONE, 2019, 14, e0214909.	1.1	45
66	Anthropogenic landscapes support fewer rare bee species. Landscape Ecology, 2019, 34, 967-978.	1.9	45
67	Pollinator-Dependent Crops: An Increasingly Risky Business. Current Biology, 2008, 18, R968-R969.	1.8	43
68	Wild insect diversity increases inter-annual stability in global crop pollinator communities. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210212.	1.2	43
69	Mechanistic modelling of the three waves of the 1918 influenza pandemic. Theoretical Ecology, 2011, 4, 283-288.	0.4	41
70	Global change, biodiversity, and ecosystem services: What can we learn from studies of pollination?. Basic and Applied Ecology, 2013, 14, 453-460.	1.2	41
71	Specialist foragers in forest bee communities are small, social or emerge early. Journal of Animal Ecology, 2019, 88, 1158-1167.	1.3	35
72	A double-edged sword: does highly active antiretroviral therapy contribute to syphilis incidence by impairing immunity toTreponema pallidum?. Sexually Transmitted Infections, 2017, 93, 374-378.	0.8	32

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73	Species loss drives ecosystem function in experiments, but in nature the importance of species loss depends on dominance. Global Ecology and Biogeography, 2020, 29, 1531-1541.	2.7	32
74	The relative importance of pollinator abundance and species richness for the temporal variance of pollination services. Ecology, 2017, 98, 1807-1816.	1.5	30
75	Speciation over the edge: gene flow among non-human primate species across a formidable biogeographic barrier. Royal Society Open Science, 2017, 4, 170351.	1.1	30
76	Reproductive status influences group size and persistence of bonds in male plains zebra (Equus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	0.6	28
77	Fitting mechanistic epidemic models to data: A comparison of simple Markov chain Monte Carlo approaches. Statistical Methods in Medical Research, 2018, 27, 1956-1967.	0.7	27
78	Measuring partner choice in plantâ€“pollinator networks: using null models to separate rewiring and fidelity from chance. Ecology, 2016, 97, 2925-2931.	1.5	26
79	Phylogenetic homogenization of bee communities across ecoregions. Global Ecology and Biogeography, 2018, 27, 1457-1466.	2.7	25
80	Speed and strength of an epidemic intervention. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20201556.	1.2	25
81	Patterns of influenza vaccination coverage in the United States from 2009 to 2015. International Journal of Infectious Diseases, 2017, 65, 122-127.	1.5	24
82	Kaiso is highly expressed in TNBC tissues of women of African ancestry compared to Caucasian women. Cancer Causes and Control, 2017, 28, 1295-1304.	0.8	23
83	Evidence that promotion of male circumcision did not lead to sexual risk compensation in prioritized Sub-Saharan countries. PLoS ONE, 2017, 12, e0175928.	1.1	22
84	Inferring generation-interval distributions from contact-tracing data. Journal of the Royal Society Interface, 2020, 17, 20190719.	1.5	22
85	Pollinator declines: reconciling scales and implications for ecosystem services. F1000Research, 2013, 2, 146.	0.8	20
86	<scp>CropPol</scp>: A dynamic, open and global database on crop pollination. Ecology, 2022, 103, e3614.	1.5	19
87	Partner age differences and associated sexual risk behaviours among adolescent girls and young women in a cash transfer programme for schooling in Malawi. BMC Public Health, 2018, 18, 403.	1.2	17
88	Forest-associated bee species persist amid forest loss and regrowth in eastern North America. Biological Conservation, 2021, 260, 109202.	1.9	17
89	Modeling the effect of HIV coinfection on clearance and sustained virologic response during treatment for hepatitis C virus. Epidemics, 2015, 12, 1-10.	1.5	15
90	The importance of the generation interval in investigating dynamics and control of new SARS-CoV-2 variants. Journal of the Royal Society Interface, 2022, 19, .	1.5	15

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91	The Circe Principle: Are Pollinators Waylaid by Attractive Habitats?. Current Biology, 2011, 21, R652-R654.	1.8	14
92	How much do rare and cropâ€pollinating bees overlap in identity and flower preferences?. Journal of Applied Ecology, 2020, 57, 413-423.	1.9	13
93	Age-dependence of healthcare interventions for COVID-19 in Ontario, Canada. BMC Public Health, 2021, 21, 706.	1.2	13
94	Crop visitation by wild bees declines over an 8â€year time series: A dramatic trend, or just dramatic betweenâ€year variation?. Insect Conservation and Diversity, 2022, 15, 522-533.	1.4	13
95	The Hayflick Limit May Determine the Effective Clonal Diversity of Naive T Cells. Journal of Immunology, 2016, 196, 4999-5004.	0.4	10
96	Stochastic simulation of multiscale complex systems with PISKaS: AÂrule-based approach. Biochemical and Biophysical Research Communications, 2018, 498, 342-351.	1.0	9
97	The Role of Floral Density in Determining Bee Foraging Behavior: A Natural Experiment. Natural Areas Journal, 2016, 36, 392-399.	0.2	8
98	Building resilience into agricultural pollination using wild pollinators. , 2019, , 109-134.		8
99	Price Equations for Understanding the Response of Ecosystem Function to Community Change. American Naturalist, 2022, 200, 181-192.	1.0	8
100	Many bee species, including rare species, are important for function of entire plantâ€"pollinator networks. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20212689.	1.2	8
101	From science to politics: COVID-19 information fatigue on YouTube. BMC Public Health, 2022, 22, 816.	1.2	8
102	The risk of incomplete personal protection coverage in vector-borne disease. Journal of the Royal Society Interface, 2016, 13, 20150666.	1.5	7
103	Out-of-Pocket Expenditures, Indirect Costs and Health-Related Quality of Life of Patients with Pulmonary Tuberculosis in Thailand. PharmacoEconomics - Open, 2018, 2, 281-296.	0.9	7
104	Transmission dynamics are crucial to COVID-19 vaccination policy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	7
105	The contribution of plant spatial arrangement to bumble bee flower constancy. Oecologia, 2022, 198, 471-481.	0.9	6
106	Metapopulations, community assembly, and scale invariance in aspect space. Theoretical Population Biology, 2002, 62, 329-338.	0.5	5
107	High offspring survival of the brown-headed cowbird in an invaded habitat. Animal Conservation, 2004, 7, 445-453.	1.5	5
108	HIV Sexual Transmission Is Predominantly Driven by Single Individuals Rather than Discordant Couples: A Model-Based Approach. PLoS ONE, 2013, 8, e82906.	1.1	5

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109	Evaluating Ebola vaccine trials: insights from simulation. Lancet Infectious Diseases, The, 2015, 15, 1134.	4.6	5
110	Human ectoparasite transmission of the plague during the Second Pandemic is only weakly supported by proposed mathematical models. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7892-E7893.	3.3	5
111	Traditional Male Circumcision is Associated with Sexual Risk Behaviors in Sub-Saharan Countries Prioritized for Male Circumcision. AIDS and Behavior, 2020, 24, 951-959.	1.4	5
112	Healthcare Resource Uses and Out-of-Pocket Expenses Associated with Pulmonary TB Treatment in Thailand. PharmacoEconomics - Open, 2018, 2, 297-308.	0.9	4
113	Assessing influenza-related mortality: comment on Zucs et al. , 2005, 2, 7.		3
114	Identifying enterotype in human microbiome by decomposing probabilistic topics into components. , 2012, , .		3
115	Patterns of seasonal and pandemic influenza-associated health care and mortality in Ontario, Canada. BMC Public Health, 2019, 19, 1237.	1.2	2
116	On state-space reduction in multi-strain pathogen models, with an application to antigenic drift in influenza A. PLoS Computational Biology, 2005, preprint, e159.	1.5	1
117	Reply from R. Winfree. Trends in Ecology and Evolution, 2000, 15, 26.	4.2	0
118	Art Winfree, Artist of Science. Journal of Theoretical Biology, 2004, 230, 441-443.	0.8	0
119	Couple serostatus patterns in sub-Saharan Africa illuminate the relative roles of transmission rates and sexual network characteristics in HIV epidemiology. Scientific Reports, 2018, 8, 6675.	1.6	0
120	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0
121	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0
122	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0
123	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0
124	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0
125	Calibration of individual-based models to epidemiological data: A systematic review. , 2020, 16, e1007893.		0