Paulo R GuimarÃ£es Jr

List of Publications by Year
in descending order

144 papers	11,124 citations	36303 51 h-index	33894 99 g-index
154 all docs	154 docs citations	154 times ranked	9652 citing authors

#	Article	IF	Citations
1	A consistent metric for nestedness analysis in ecological systems: reconciling concept and measurement. Oikos, 2008, 117, 1227-1239.	2.7	1,261
2	Functional Extinction of Birds Drives Rapid Evolutionary Changes in Seed Size. Science, 2013, 340, 1086-1090.	12.6	560
3	Non-random coextinctions in phylogenetically structured mutualistic networks. Nature, 2007, 448, 925-928.	27.8	470
4	Improving the analyses of nestedness for large sets of matrices. Environmental Modelling and Software, 2006, 21, 1512-1513.	4.5	387
5	Analysing ecological networks of species interactions. Biological Reviews, 2019, 94, 16-36.	10.4	347
6	The ecological and evolutionary implications of merging different types of networks. Ecology Letters, 2011, 14, 1170-1181.	6.4	332
7	Seed Dispersal Anachronisms: Rethinking the Fruits Extinct Megafauna Ate. PLoS ONE, 2008, 3, e1745.	2.5	292
8	Biodiversity, Species Interactions and Ecological Networks in a Fragmented World. Advances in Ecological Research, 2012, 46, 89-210.	2.7	284
9	Evolution and coevolution in mutualistic networks. Ecology Letters, 2011, 14, 877-885.	6.4	256
10	The dimensionality of ecological networks. Ecology Letters, 2013, 16, 577-583.	6.4	246
11	Analysis of a hyper-diverse seed dispersal network: modularity and underlying mechanisms. Ecology Letters, 2011, 14, 773-781.	6.4	243
12	Indirect effects drive coevolution in mutualistic networks. Nature, 2017, 550, 511-514.	27.8	215
13	Seed survival and dispersal of an endemic Atlantic forest palm: the combined effects of defaunation and forest fragmentation. Botanical Journal of the Linnean Society, 2006, 151, 141-149.	1.6	213
14	NETWORK ANALYSIS REVEALS CONTRASTING EFFECTS OF INTRASPECIFIC COMPETITION ON INDIVIDUAL VS. POPULATION DIETS. Ecology, 2008, 89, 1981-1993.	3.2	205
15	Asymmetries in specialization in antâ€"plant mutualistic networks. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2041-2047.	2.6	191
16	Interaction Intimacy Affects Structure and Coevolutionary Dynamics in Mutualistic Networks. Current Biology, 2007, 17, 1797-1803.	3.9	188
17	Ecological and evolutionary legacy of megafauna extinctions. Biological Reviews, 2018, 93, 845-862.	10.4	183
18	A neutralâ€niche theory of nestedness in mutualistic networks. Oikos, 2008, 117, 1609-1618.	2.7	176

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19	Assembly of complex plantâ€"fungus networks. Nature Communications, 2014, 5, 5273.	12.8	160
20	Structure and mechanism of diet specialisation: testing models of individual variation in resource use with sea otters. Ecology Letters, 2012, 15, 475-483.	6.4	146
21	MODULAR: software for the autonomous computation of modularity in large network sets. Ecography, 2014, 37, 221-224.	4.5	138
22	The Structure of Ecological Networks Across Levels of Organization. Annual Review of Ecology, Evolution, and Systematics, 2020, 51, 433-460.	8.3	128
23	Spatial structure of antâ€"plant mutualistic networks. Oikos, 2013, 122, 1643-1648.	2.7	126
24	Pleistocene megafaunal extinctions and the functional loss of longâ€distance seedâ€dispersal services. Ecography, 2018, 41, 153-163.	4.5	118
25	The Missing Part of Seed Dispersal Networks: Structure and Robustness of Bat-Fruit Interactions. PLoS ONE, 2011, 6, e17395.	2.5	116
26	On nestedness analyses: rethinking matrix temperature and antiâ€nestedness. Oikos, 2007, 116, 716-722.	2.7	115
27	Seedâ€dispersal interactions in fragmented landscapes â€" a metanetwork approach. Ecology Letters, 2018, 21, 484-493.	6.4	115
28	The modularity of seed dispersal: differences in structure and robustness between batâ€" and birdâ€"fruit networks. Oecologia, 2011, 167, 131-40.	2.0	111
29	Changes of a mutualistic network over time: reanalysis over a 10â€year period. Ecology, 2010, 91, 793-801.	3.2	99
30	Large vertebrates as the missing components of seed-dispersal networks. Biological Conservation, 2013, 163, 42-48.	4.1	97
31	Omnivory in birds is a macroevolutionary sink. Nature Communications, 2016, 7, 11250.	12.8	95
32	Species-rich networks and eco-evolutionary synthesis at the metacommunity level. Nature Ecology and Evolution, 2017, 1, 24.	7.8	95
33	The nested structure of marine cleaning symbiosis: is it like flowers and bees?. Biology Letters, 2007, 3, 51-54.	2.3	92
34	Macroecological trends in nestedness and modularity of seedâ€dispersal networks: human impact matters. Global Ecology and Biogeography, 2015, 24, 293-303.	5.8	92
35	Frugivores at higher risk of extinction are the key elements of a mutualistic network. Ecology, 2014, 95, 3440-3447.	3.2	88
36	Nested diets: a novel pattern of individual-level resource use. Oikos, 2010, 119, 81-88.	2.7	87

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37	Disentangling social networks from spatiotemporal dynamics: the temporal structure of a dolphin society. Animal Behaviour, 2012, 84, 641-651.	1.9	82
38	Collapse of an ecological network in Ancient Egypt. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14472-14477.	7.1	81
39	The nested assembly of individual-resource networks. Journal of Animal Ecology, 2011, 80, 896-903.	2.8	80
40	Native and Non-Native Supergeneralist Bee Species Have Different Effects on Plant-Bee Networks. PLoS ONE, 2015, 10, e0137198.	2.5	76
41	Cheaters in mutualism networks. Biology Letters, 2010, 6, 494-497.	2.3	75
42	Below-ground plantâ€"fungus network topology is not congruent with above-ground plantâ€"animal network topology. Science Advances, 2015, 1, e1500291.	10.3	74
43	What makes a species central in a cleaning mutualism network?. Oikos, 2010, 119, 1319-1325.	2.7	70
44	Abiotic factors shape temporal variation in the structure of an antâ€"plant network. Arthropod-Plant Interactions, 2012, 6, 289-295.	1.1	69
45	Reconstructing past ecological networks: the reconfiguration of seed-dispersal interactions after megafaunal extinction. Oecologia, 2014, 175, 1247-1256.	2.0	69
46	The structure of antâ€"plant ecological networks: Is abundance enough?. Ecology, 2014, 95, 475-485.	3.2	68
47	Adaptive Networks for Restoration Ecology. Trends in Ecology and Evolution, 2018, 33, 664-675.	8.7	67
48	Interaction intimacy organizes networks of antagonistic interactions in different ways. Journal of the Royal Society Interface, 2013, 10, 20120649.	3.4	66
49	Spatial mating networks in insectâ€pollinated plants. Ecology Letters, 2008, 11, 490-498.	6.4	65
50	Synchronisation and stability in river metapopulation networks. Ecology Letters, 2014, 17, 273-283.	6.4	62
51	Diversification through multitrait evolution in a coevolving interaction. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11487-11492.	7.1	60
52	A Network Perspective for Community Assembly. Frontiers in Ecology and Evolution, 2019, 7, .	2.2	59
53	Extreme diversification of floral volatiles within and among species of <i>Lithophragma</i> (Saxifragaceae). Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4406-4415.	7.1	56
54	Unravelling Darwin's entangled bank: architecture and robustness of mutualistic networks with multiple interaction types. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161564.	2.6	54

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55	Nested speciesâ€rich networks of scavenging vertebrates support high levels of interspecific competition. Ecology, 2016, 97, 95-105.	3.2	54
56	Small Marine Protected Areas in Fiji Provide Refuge for Reef Fish Assemblages, Feeding Groups, and Corals. PLoS ONE, 2017, 12, e0170638.	2.5	53
57	Long-term temporal variation in the organization of an antâ€“plant network. Annals of Botany, 2013, 111, 1285-1293.	2.9	52
58	The geographic mosaic of coevolution in mutualistic networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12017-12022.	7.1	50
59	Seed dispersal and predation in the endemic Atlantic rainforest palm <i>Astrocaryum aculeatissimum</i> across a gradient of seed disperser abundance. Ecological Research, 2009, 24, 1187-1195.	1.5	48
60	Nestedness across biological scales. PLoS ONE, 2017, 12, e0171691.	2.5	44
61	The impact of climate change on the structure of Pleistocene food webs across the mammoth steppe. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130239.	2.6	43
62	Network Structure and Selection Asymmetry Drive Coevolution in Species-Rich Antagonistic Interactions. American Naturalist, 2017, 190, 99-115.	2.1	42
63	Vulnerability of a killer whale social network to disease outbreaks. Physical Review E, 2007, 76, 042901.	2.1	40
64	Pleistocene megafaunal interaction networks became more vulnerable after human arrival. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151367.	2.6	40
65	Individual variation in resource use by opossums leading to nested fruit consumption. Oikos, 2013, 122, 1085-1093.	2.7	40
66	The Spatial Structure of Antagonistic Species Affects Coevolution in Predictable Ways. American Naturalist, 2013, 182, 578-591.	2.1	38
67	Build-up mechanisms determining the topology of mutualistic networks. Journal of Theoretical Biology, 2007, 249, 181-189.	1.7	37
68	The indirect paths to cascading effects of extinctions in mutualistic networks. Ecology, 2020, 101, e03080.	3.2	37
69	Why do larvae of Utetheisa ornatrix penetrate and feed in pods of Crotalaria species? Larval performance vs. chemical and physical constraints. Entomologia Experimentalis Et Applicata, 2006, 121, 23-29.	1.4	35
70	Unifying host-associated diversification processes using butterflyâ€“plant networks. Nature Communications, 2018, 9, 5155.	12.8	35
71	Quinolizidine alkaloids in Ormosia arborea seeds inhibit predation but not hoarding by agoutis (Dasyprocta leporina). Journal of Chemical Ecology, 2003, 29, 1065-1072.	1.8	34
72	The Robustness of Plant-Pollinator Assemblages: Linking Plant Interaction Patterns and Sensitivity to Pollinator Loss. PLoS ONE, 2015, 10, e0117243.	2.5	34

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73	Local extinctions of obligate frugivores and patch size reduction disrupt the structure of seed dispersal networks. Ecography, 2018, 41, 1899-1909.	4.5	33
74	Parrot populations and habitat use in and around two lowland Atlantic forest reserves, Brazil. Biological Conservation, 2000, 96, 209-217.	4.1	32
75	Extrafloral nectaries as a deterrent mechanism against seed predators in the chemically protected weed Crotalaria pallida (Leguminosae). Austral Ecology, 2006, 31, 776-782.	1.5	32
76	The goatfish Pseudupeneus maculatus and its follower fishes at an oceanic island in the tropical west Atlantic. Journal of Fish Biology, 2006, 69, 883-891.	1.6	29
77	Low-load pathogen spillover predicts shifts in skin microbiome and survival of a terrestrial-breeding amphibian. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191114.	2.6	29
78	Species traits and interaction rules shape a speciesâ€rich seedâ€dispersal interaction network. Ecology and Evolution, 2017, 7, 4496-4506.	1.9	28
79	Seed cleaning of Cupania vernalis (Sapindaceae) by ants: edge effect in a highland forest in south-east Brazil. Journal of Tropical Ecology, 2002, 18, 303-307.	1.1	27
80	Do Food Web Models Reproduce the Structure of Mutualistic Networks?. PLoS ONE, 2011, 6, e27280.	2.5	27
81	Hyper abundant mesopredators and bird extinction in an Atlantic forest island. Zoologia, 2009, 26, 288-298.	0.5	26
82	Merging Resource Availability with Isotope Mixing Models: The Role of Neutral Interaction Assumptions. PLoS ONE, 2011, 6, e22015.	2.5	26
83	Conflicting Selection in the Course of Adaptive Diversification: The Interplay between Mutualism and Intraspecific Competition. American Naturalist, 2014, 183, 363-375.	2.1	26
84	Coevolution by different functional mechanisms modulates the structure and dynamics of antagonistic and mutualistic networks. Oikos, 2020, 129, 224-237.	2.7	26
85	Random initial condition in small Barabasi-Albert networks and deviations from the scale-free behavior. Physical Review E, 2005, 71, 037101.	2.1	25
86	Size-based fruit selection of Calophyllum brasiliense (Clusiaceae) by bats of the genus Artibeus (Phyllostomidae) in a Restinga area, southeastern Brazil. Acta Chiropterologica, 2005, 7, 179-182.	0.6	25
87	A sexual network approach to sperm competition in a species with alternative mating tactics. Behavioral Ecology, 2015, 26, 121-129.	2.2	25
88	Untangling the Tangled Bank: A Novel Method for Partitioning the Effects of Phylogenies and Traits on Ecological Networks. Evolutionary Biology, 2017, 44, 312-324.	1.1	24
89	Fleshy pulp enhances the location of Syagrus romanzoffiana (Arecaceae) fruits by seed-dispersing rodents in an Atlantic forest in south-eastern Brazil. Journal of Tropical Ecology, 2005, 21, 109-112.	1.1	23
90	Cleaning associations between birds and herbivorous mammals in Brazil: Structure and complexity. Auk, 2012, 129, 36-43.	1.4	22

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91	Predicting the nonâ€linear collapse of plantâ€“frugivore networks due to habitat loss. Ecography, 2019, 42, 1765-1776.	4.5	22
92	Identifying plant mixes for multiple ecosystem service provision in agricultural systems using ecological networks. Journal of Applied Ecology, 2021, 58, 2770-2782.	4.0	22
93	Mistletoes Play Different Roles in a Modular Hostâ€“Parasite Network. Biotropica, 2012, 44, 171-178.	1.6	21
94	Coevolution Creates Complex Mosaics across Large Landscapes. American Naturalist, 2019, 194, 217-229.	2.1	21
95	Diverse interactions and ecosystem engineering can stabilize community assembly. Nature Communications, 2020, 11, 3307.	12.8	21
96	Associated evolution of fruit size, fruit colour and spines in Neotropical palms. Journal of Evolutionary Biology, 2020, 33, 858-868.	1.7	21
97	Factors affecting seed predation of Eriotheca gracilipes (Bombacaceae) by parakeets in a cerrado fragment. Acta Oecologica, 2008, 33, 240-245.	1.1	20
98	Does biological intimacy shape ecological network structure? A test using a brood pollination mutualism on continental and oceanic islands. Journal of Animal Ecology, 2018, 87, 1160-1171.	2.8	20
99	Interaction strength promotes robustness against cascading effects in mutualistic networks. Scientific Reports, 2019, 9, 676.	3.3	20
100	Eco-evolutionary feedbacks promote fluctuating selection and long-term stability of antagonistic networks. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172596.	2.6	19
101	Loss of Generalist Plant Species and Functional Diversity Decreases the Robustness of a Seed Dispersal Network. Environmental Conservation, 2019, 46, 52-58.	1.3	18
102	Macroevolutionary stability predicts interaction patterns of species in seed dispersal networks. Science, 2021, 372, 733-737.	12.6	18
103	Seed removal by ants from faeces produced by different vertebrate species. Ecoscience, 2005, 12, 136-140.	1.4	17
104	Persistence of Plants and Pollinators in the Face of Habitat Loss. Advances in Ecological Research, 2015, 53, 201-257.	2.7	17
105	Network analyses support the role of prey preferences in shaping resource use patterns within five animal populations. Oikos, 2016, 125, 492-501.	2.7	16
106	Revealing biases in the sampling of ecological interaction networks. PeerJ, 2019, 7, e7566.	2.0	15
107	Predicting invasive potential of smooth crotalaria (Crotalaria pallida) in Brazilian national parks based on African records. Weed Science, 2006, 54, 458-463.	1.5	14
108	Probabilistic patterns of interaction: the effects of link-strength variability on food web structure. Journal of the Royal Society Interface, 2012, 9, 3219-3228.	3.4	14

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109	Searching for Modular Structure in Complex Phenotypes: Inferences from Network Theory. Evolutionary Biology, 2009, 36, 416.	1.1	13
110	Changes in intrapopulation resource use patterns of an endangered raptor in response to a diseaseâ€mediated crash in prey abundance. Journal of Animal Ecology, 2012, 81, 1154-1160.	2.8	13
111	The friendship paradox in species-rich ecological networks: Implications for conservation and monitoring. Biological Conservation, 2017, 209, 245-252.	4.1	13
112	Genetic correlations and ecological networks shape coevolving mutualisms. Ecology Letters, 2020, 23, 1789-1799.	6.4	13
113	Does the sociality of pollinators shape the organisation of pollination networks?. Oikos, 2019, 128, 741-752.	2.7	12
114	Before, during and after megafaunal extinctions: Human impact on Pleistocene-Holocene trophic networks in South Patagonia. Quaternary Science Reviews, 2020, 250, 106696.	3.0	12
115	Seed predation and fruit damage of Solanum lycocarpum (Solanaceae) by rodents in the cerrado of central Brazil. Acta Oecologica, 2007, 31, 8-12.	1.1	11
116	Habitat generalist species constrain the diversity of mimicry rings in heterogeneous habitats. Scientific Reports, 2021, 11, 5072.	3.3	10
117	Annual precipitation predicts the phylogenetic signal in batâ€“fruit interaction networks across the Neotropics. Biology Letters, 2021, 17, 20210478.	2.3	10
118	A multinomial network method for the analysis of mate choice and assortative mating in spatially structured populations. Methods in Ecology and Evolution, 2017, 8, 1321-1331.	5.2	9
119	Cache pilferage in red-rumped agoutis (Dasyprocta leporina) (Rodentia). Mammalia, 2005, 69, .	0.7	8
120	The network organization of protein interactions in the spliceosome is reproduced by the simple rules of food-web models. Scientific Reports, 2015, 5, 14865.	3.3	8
121	Trophic rewilding benefits a tropical community through direct and indirect network effects. Ecography, 2022, 2022, .	4.5	8
122	Testing the quick meal hypothesis: The effect of pulp on hoarding and seed predation of Hymenaea courbaril by red-rumped agoutis (Dasyprocta leporina). Austral Ecology, 2006, 31, 95-98.	1.5	7
123	Integrating Computational Methods to Investigate the Macroecology of Microbiomes. Frontiers in Genetics, 2019, 10, 1344.	2.3	7
124	Network science: Applications for sustainable agroecosystems and food security. Perspectives in Ecology and Conservation, 2022, 20, 79-90.	1.9	7
125	Species traits and abundance influence the organization of lianaâ€“tree antagonistic interaction. Austral Ecology, 2018, 43, 236-241.	1.5	6
126	Interaction paths promote module integration and network-level robustness of spliceosome to cascading effects. Scientific Reports, 2018, 8, 17441.	3.3	6

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127	Ecological networks: assembly and consequences. Oikos, 2016, 125, 443-445.	2.7	5
128	The individualâ€based network structure of palmâ€seed dispersers is explained by a rainforest gradient. Oikos, 2022, 2022, .	2.7	5
129	Network analyses reveal the role of large snakes in connecting feeding guilds in a speciesâ€rich Amazonian snake community. Ecology and Evolution, 2021, 11, 6558-6568.	1.9	4
130	Temporal organization among pollination systems in a tropical seasonal forest. Die Naturwissenschaften, 2021, 108, 34.	1.6	4
131	On nestedness analyses: rethinking matrix temperature and anti-nestedness. Oikos, 2007, 116, 716-722.	2.7	4
132	Ehrlich and Raven escape and radiate coevolution hypothesis at different levels of organization: Past and future perspectives. Evolution; International Journal of Organic Evolution, 2022, 76, 1108-1123.	2.3	4
133	Investigating small fish schools: Selection of schoolâ€"formation models by means of general linear models and numerical simulations. Journal of Theoretical Biology, 2007, 245, 784-789.	1.7	3
134	The role of predator overlap in the robustness and extinction of a four species predatorâ€"prey network. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 4725-4733.	2.6	3
135	Impacts of enemyâ€mediated effects and the additivity of interactions in an insect trophic system. Population Ecology, 2013, 55, 11-26.	1.2	3
136	Coevolutionary patterns caused by prey selection. Journal of Theoretical Biology, 2020, 501, 110327.	1.7	3
137	Resource partitioning between fisheries and endangered sharks in a tropical marine food web. ICES Journal of Marine Science, 2021, 78, 2518-2527.	2.5	2
138	Using motifs in ecological networks to identify the role of plants in crop margins for multiple agriculture functions. Agriculture, Ecosystems and Environment, 2022, 331, 107912.	5.3	2
139	A neutral-niche theory of nestedness in mutualistic networks. Oikos, 2008, , .	2.7	1
140	Reply to Evans and Bar-Oz et al.: Recovering ecological pattern and process in Ancient Egypt. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E240-E240.	7.1	0
141	In remembrance of Victor Rico Gray (1951â€2021): An astonishing tropical ecologist. Biotropica, 2021, 53, 1238-1243.	1.6	0
142	Fundamentos para o conteÃºdo e a implementaÃ§Ã£o da pÃ³s-graduaÃ§Ã£o em Ecologia. Revista Brasileira De PÃ³s-GraduaÃ§Ã£o, 2013, 10, .	0.1	0
143	Organisms as complex structures wrapped in a complex web of life. American Naturalist, 2022, 199, 804-807.	2.1	0
144	Frugivore Population Biomass, but Not Density, Affect Seed Dispersal Interactions in a Hyper-Diverse Frugivory Network. Frontiers in Ecology and Evolution, 2022, 10, .	2.2	0