Charles C Davis

List of Publications by Citations

124 papers	7,892 citations	48 h-index	87 g-index
147 ext. papers	9,685 ext. citations	6.7 avg, IF	6.17 L-index

#	Paper	IF	Citations
124	The deepest divergences in land plants inferred from phylogenomic evidence. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 15511-6	11.5	500
123	Angiosperm phylogeny: 17 genes, 640 taxa. *American Journal of Botany*, **2011**, 98, 704-30	2.7	493
122	Phylogenetic patterns of species loss in Thoreau's woods are driven by climate change. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 17029-33	11.5	424
121	Rosid radiation and the rapid rise of angiosperm-dominated forests. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 3853-8	11.5	347
120	Laurasian migration explains Gondwanan disjunctions: evidence from Malpighiaceae. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 6833-7	11.5	256
119	Explosive radiation of Malpighiales supports a mid-cretaceous origin of modern tropical rain forests. *American Naturalist*, **2005**, 165, E36-65	3.7	251
118	Phylogenomics and a posteriori data partitioning resolve the Cretaceous angiosperm radiation Malpighiales. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 17519-24	11.5	238
117	Implementing and testing the multispecies coalescent model: A valuable paradigm for phylogenomics. *Molecular Phylogenetics and Evolution*, **2016**, 94, 447-62	4.1	230
116	Malpighiales phylogenetics: Gaining ground on one of the most recalcitrant clades in the angiosperm tree of life. *American Journal of Botany*, **2009**, 96, 1551-70	2.7	222
115	Host-to-parasite gene transfer in flowering plants: phylogenetic evidence from Malpighiales. *Science*, **2004**, 305, 676-8	33.3	199
114	The abiotic and biotic drivers of rapid diversification in Andean bellflowers (Campanulaceae). *New Phytologist*, **2016**, 210, 1430-42	9.8	194
113	Favorable climate change response explains non-native species'success in Thoreau's woods. *PLoS ONE*, **2010**, 5, e8878	3.7	172
112	Widespread sampling biases in herbaria revealed from large-scale digitization. *New Phytologist*, **2018**, 217, 939-955	9.8	155
111	Old Plants, New Tricks: Phenological Research Using Herbarium Specimens. *Trends in Ecology and Evolution*, **2017**, 32, 531-546	10.9	151
110	Phylogenetic Analyses of Basal Angiosperms Based on Nine Plastid, Mitochondrial, and Nuclear Genes. *International Journal of Plant Sciences*, **2005**, 166, 815-842	2.6	150
109	Coalescent versus concatenation methods and the placement of Amborella as sister to water lilies. *Systematic Biology*, **2014**, 63, 919-32	8.4	132
108	Herbarium records are reliable sources of phenological change driven by climate and provide novel insights into species'phenological cueing mechanisms. *American Journal of Botany*, **2015**, 102, 1599-609	2.7	131

107	Estimating phylogenetic trees from genome-scale data. *Annals of the New York Academy of Sciences* , **2015**, 1360, 36-53	6.5	122
106	The importance of phylogeny to the study of phenological response to global climate change. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2010**, 365, 3201-13	5.8	117
105	A complete generic phylogeny of Malpighiaceae inferred from nucleotide sequence data and morphology. *American Journal of Botany*, **2010**, 97, 2031-48	2.7	111
104	Temperature-dependent shifts in phenology contribute to the success of exotic species with climate change. *American Journal of Botany*, **2013**, 100, 1407-21	2.7	104
103	Record-breaking early flowering in the eastern United States. *PLoS ONE*, **2013**, 8, e53788	3.7	102
102	Floral gigantism in Rafflesiaceae. *Science*, **2007**, 315, 1812	33.3	97
101	Phylogeny of Malpighiaceae: evidence from chloroplast ndhF and trnl-F nucleotide sequences. *American Journal of Botany*, **2001**, 88, 1830-1846	2.7	95
100	Phylogeny of Acridocarpus-Brachylophon (Malpighiaceae): implications for tertiary tropical floras and Afroasian biogeography. *Evolution; International Journal of Organic Evolution*, **2002**, 56, 2395-405	3.8	92
99	Floral symmetry genes and the origin and maintenance of zygomorphy in a plant-pollinator mutualism. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 6388-93	11.5	91
98	Phylogeny of the clusioid clade (Malpighiales): evidence from the plastid and mitochondrial genomes. *American Journal of Botany*, **2011**, 98, 306-25	2.7	88
97	Biological collections for understanding biodiversity in the Anthropocene. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 374,	5.8	87
96	Massive mitochondrial gene transfer in a parasitic flowering plant clade. *PLoS Genetics*, **2013**, 9, e1003265	6	86
95	Leaf out times of temperate woody plants are related to phylogeny, deciduousness, growth habit and wood anatomy. *New Phytologist*, **2014**, 203, 1208-1219	9.8	84
94	Evolutionary bursts in Euphorbia (Euphorbiaceae) are linked with photosynthetic pathway. *Evolution; International Journal of Organic Evolution*, **2014**, 68, 3485-504	3.8	84
93	The Impact of Missing Data on Species Tree Estimation. *Molecular Biology and Evolution*, **2016**, 33, 838-60	8.3	82
92	Elatinaceae are sister to Malpighiaceae; Peridiscaceae belong to Saxifragales. *American Journal of Botany*, **2004**, 91, 262-73	2.7	78
91	Gene transfer from a parasitic flowering plant to a fern. *Proceedings of the Royal Society B: Biological Sciences*, **2005**, 272, 2237-42	4.4	75
90	Molecular phylogenetics of Phyllanthaceae: evidence from plastid MATK and nuclear PHYC sequences. *American Journal of Botany*, **2005**, 92, 132-41	2.7	75

89	Phylogenetic Analysis of the Plastid Inverted Repeat for 244 Species: Insights into Deeper-Level Angiosperm Relationships from a Long, Slowly Evolving Sequence Region. *International Journal of Plant Sciences*, **2011**, 172, 541-558	2.6	74
88	The unrealized potential of herbaria for global change biology. *Ecological Monographs*, **2018**, 88, 505-525	9	73
87	Horizontal transfer of expressed genes in a parasitic flowering plant. *BMC Genomics*, **2012**, 13, 227	4.5	73
86	Genes with minimal phylogenetic information are problematic for coalescent analyses when gene tree estimation is biased. *Molecular Phylogenetics and Evolution*, **2015**, 92, 63-71	4.1	69
85	Digitization and the Future of Natural History Collections. *BioScience*, **2020**, 70, 243-251	5.7	68
84	Streptophyte algae and the origin of land plants revisited using heterogeneous models with three new algal chloroplast genomes. *Molecular Biology and Evolution*, **2014**, 31, 177-83	8.3	63
83	Long-term morphological stasis maintained by a plant-pollinator mutualism. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 5914-9	11.5	58
82	Phylogenomics and coalescent analyses resolve extant seed plant relationships. *PLoS ONE*, **2013**, 8, e80870	3.7	58
81	High-Latitude Tertiary Migrations of an Exclusively Tropical Clade: Evidence from Malpighiaceae. *International Journal of Plant Sciences*, **2004**, 165, S107-S121	2.6	58
80	Coalescent methods are robust to the simultaneous effects of long branches and incomplete lineage sorting. *Molecular Biology and Evolution*, **2015**, 32, 791-805	8.3	57
79	A statistical estimator for determining the limits of contemporary and historic phenology. *Nature Ecology and Evolution*, **2017**, 1, 1876-1882	12.3	55
78	Horizontal gene transfer in parasitic plants. *Current Opinion in Plant Biology*, **2015**, 26, 14-9	9.9	52
77	The evolution of floral gigantism. *Current Opinion in Plant Biology*, **2008**, 11, 49-57	9.9	52
76	CrowdCurio: an online crowdsourcing platform to facilitate climate change studies using herbarium specimens. *New Phytologist*, **2017**, 215, 479-488	9.8	45
75	Widespread ancient whole-genome duplications in Malpighiales coincide with Eocene global climatic upheaval. *New Phytologist*, **2019**, 221, 565-576	9.8	43
74	Herbarium specimens reveal substantial and unexpected variation in phenological sensitivity across the eastern United States. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 374,	5.8	42
73	Prickly waterlily and rigid hornwort genomes shed light on early angiosperm evolution. *Nature Plants*, **2020**, 6, 215-222	11.5	40
72	Plastid phylogenomics and green plant phylogeny: almost full circle but not quite there. *BMC Biology*, **2014**, 12, 11	7.3	38

71	Dispersal largely explains the Gondwanan distribution of the ancient tropical clusioid plant clade. *American Journal of Botany*, **2016**, 103, 1117-28	2.7	36
70	Repeated evolution of vertebrate pollination syndromes in a recently diverged Andean plant clade. *Evolution; International Journal of Organic Evolution*, **2017**, 71, 1970-1985	3.8	36
69	Phylogeny of Gracilariaceae (Rhodophyta): evidence from plastid and mitochondrial nucleotide sequences. *Journal of Phycology*, **2015**, 51, 356-66	3	34
68	Digitization protocol for scoring reproductive phenology from herbarium specimens of seed plants. *Applications in Plant Sciences*, **2018**, 6, e1022	2.3	33
67	Phylogeny and biogeography of the carnivorous plant family Sarraceniaceae. *PLoS ONE*, **2012**, 7, e39291	3.7	33
66	Divergent genetic mechanisms underlie reversals to radial floral symmetry from diverse zygomorphic flowered ancestors. *Frontiers in Plant Science*, **2013**, 4, 302	6.2	31
65	Holoparasitic Rafflesiaceae possess the most reduced endophytes and yet give rise to the world's largest flowers. *Annals of Botany*, **2014**, 114, 233-42	4.1	30
64	Combined Morphological and Molecular Phylogeny of the Clusioid Clade (Malpighiales) and the Placement of the Ancient Rosid MacrofossilPaleoclusia. *International Journal of Plant Sciences*, **2013**, 174, 910-936	2.6	29
63	Life cycle matters: DNA barcoding reveals contrasting community structure between fern sporophytes and gametophytes. *Ecological Monographs*, **2017**, 87, 278-296	9	28
62	Advances in the floral structural characterization of the major subclades of Malpighiales, one of the largest orders of flowering plants. *Annals of Botany*, **2013**, 111, 969-85	4.1	28
61	Machine Learning Using Digitized Herbarium Specimens to Advance Phenological Research. *BioScience*, **2020**, 70, 610-620	5.7	28
60	Extended flowering intervals of bamboos evolved by discrete multiplication. *Ecology Letters*, **2015**, 18, 653-9	10	27
59	Implications and alternatives of assigning climate data to geographical centroids. *Journal of Biogeography*, **2017**, 44, 2188-2198	4.1	26
58	Freezing and water availability structure the evolutionary diversity of trees across the Americas. *Science Advances*, **2020**, 6, eaaz5373	14.3	24
57	The establishment of Central American migratory corridors and the biogeographic origins of seasonally dry tropical forests in Mexico. *Frontiers in Genetics*, **2014**, 5, 433	4.5	24
56	Developmental origins of the world's largest flowers, Rafflesiaceae. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 18578-83	11.5	23
55	Phylogeny, classification, and fruit evolution of the species-rich Neotropical bellflowers (Campanulaceae: Lobelioideae). *American Journal of Botany*, **2014**, 101, 2097-112	2.7	23
54	Large‐scale digitization of herbarium specimens: Development and usage of an automated, high‐throughput conveyor system. *Taxon*, **2018**, 67, 149-164	0.8	23

53	Madagasikaria (Malpighiaceae): a new genus from Madagascar with implications for floral evolution in Malpighiaceae. *American Journal of Botany*, **2002**, 89, 699-706	2.7	20
52	Similar genetic mechanisms underlie the parallel evolution of floral phenotypes. *PLoS ONE*, **2012**, 7, e36033	3.7	20
51	Floral structure and development in Rafflesiaceae with emphasis on their exceptional gynoecia. *American Journal of Botany*, **2014**, 101, 225-43	2.7	19
50	Reconstructing deep-time palaeoclimate legacies in the clusioid Malpighiales unveils their role in the evolution and extinction of the boreotropical flora. *Global Ecology and Biogeography*, **2018**, 27, 616-628	6.1	17
49	Deeply Altered Genome Architecture in the Endoparasitic Flowering Plant Sapria himalayana Griff. (Rafflesiaceae). *Current Biology*, **2021**, 31, 1002-1011.e9	6.3	17
48	Differential Expression of CYC2 Genes and the Elaboration of Floral Morphologies in Hiptage, an Old World Genus of Malpighiaceae. *International Journal of Plant Sciences*, **2016**, 177, 551-558	2.6	16
47	Unraveling the biogeographical history of Chrysobalanaceae from plastid genomes. *American Journal of Botany*, **2016**, 103, 1089-102	2.7	16
46	Reading between the vines: Hosts as islands for extreme holoparasitic plants. *American Journal of Botany*, **2017**, 104, 1382-1389	2.7	16
45	Water lily () genome reveals variable genomic signatures of ancient vascular cambium losses. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 8649-8656	11.5	15
44	Phylogeny of the Inula group (Asteraceae: Inuleae): Evidence from nuclear and plastid genomes and a recircumscription of Pentanema. *Taxon*, **2018**, 67, 165-178	0.8	15
43	Delimitating cryptic species in the Gracilaria domingensis complex (Gracilariaceae, Rhodophyta) using molecular and morphological data. *Journal of Phycology*, **2016**, 52, 997-1017	3	15
42	Pitcher Plants (Sarracenia) Provide a 21st-Century Perspective on Infraspecific Ranks and Interspecific Hybrids: A Modest Proposal* for Appropriate Recognition and Usage. *Systematic Botany*, **2014**, 39, 939-949	0.7	14
41	EXPANSION OF DIPLOPTERYS AT THE EXPENSE OF BANISTERIOPSIS (MALPIGHIACEAE). *Harvard Papers in Botany*, **2006**, 11, 1-16	0.3	14
40	Organellar genomics: a useful tool to study evolutionary relationships and molecular evolution in Gracilariaceae (Rhodophyta). *Journal of Phycology*, **2018**, 54, 775-787	3	13
39	The big, the bad, and the beautiful: Biology of the worldŦs largest flowers. *Journal of Systematics and Evolution*, **2017**, 55, 516-524	2.9	13
38	Plant evolution: pulses of extinction and speciation in gymnosperm diversity. *Current Biology*, **2011**, 21, R995-8	6.3	13
37	Phylogenetic Placement of Rheopteris and the Polyphyly of Monogramma (Pteridaceae s.l.): Evidence from rbcL Sequence Data. *Systematic Botany*, **2008**, 33, 37-43	0.7	11
36	Phylogeny of Elatinaceae and the Tropical Gondwanan Origin of the Centroplacaceae(Malpighiaceae, Elatinaceae) Clade. *PLoS ONE*, **2016**, 11, e0161881	3.7	11

35	A New Method for Counting Reproductive Structures in Digitized Herbarium Specimens Using Mask R-CNN. *Frontiers in Plant Science*, **2020**, 11, 1129	6.2	11
34	Deep genetic divergence between disjunct Refugia in the Arctic-Alpine King's Crown, Rhodiola integrifolia (Crassulaceae). *PLoS ONE*, **2013**, 8, e79451	3.7	10
33	Machine learning predicts large scale declines in native plant phylogenetic diversity. *New Phytologist*, **2020**, 227, 1544-1556	9.8	9
32	Mating system does not predict niche breath. *Global Ecology and Biogeography*, **2018**, 27, 804-813	6.1	9
31	Floral evolution: dramatic size change was recent and rapid in the world's largest flowers. *Current Biology*, **2008**, 18, R1102-4	6.3	9
30	The Perfect Storm: Gene Tree Estimation Error, Incomplete Lineage Sorting, and Ancient Gene Flow Explain the Most Recalcitrant Ancient Angiosperm Clade, Malpighiales. *Systematic Biology*, **2021**, 70, 491-507	8.4	9
29	Plastomes resolve generic limits within tribe Clusieae (Clusiaceae) and reveal the new genus Arawakia. *Molecular Phylogenetics and Evolution*, **2019**, 134, 142-151	4.1	8
28	Phenological sensitivity to temperature mediates herbivory. *Global Change Biology*, **2021**, 27, 2315-2327	11.4	8
27	Rethinking migration. *Science*, **2015**, 348, 766	33.3	7
26	Evolution: pollen or pollinators□□which came first?. *Current Biology*, **2013**, 23, R316-8	6.3	7
25	Life in the canopy: community trait assessments reveal substantial functional diversity among fern epiphytes. *New Phytologist*, **2020**, 227, 1885-1899	9.8	7
24	An invasive species spread by threatened diurnal lemurs impacts rainforest structure in Madagascar. *Biological Invasions*, **2020**, 22, 2845-2858	2.7	6
23	Life history, diversity, and distribution in parasitic flowering plants. *Plant Physiology*, **2021**, 187, 32-51	6.6	6
22	The New England Vascular Plants Project: 295,000 specimens and counting. *Rhodora*, **2016**, 118, 324-325	0.3	6
21	Diverse trajectories of plastome degradation in holoparasitic Cistanche and genomic location of the lost plastid genes. *Journal of Experimental Botany*, **2020**, 71, 877-892	7	6
20	Plastome phylogenomics, systematics, and divergence time estimation of the Beilschmiedia group (Lauraceae). *Molecular Phylogenetics and Evolution*, **2020**, 151, 106901	4.1	5
19	Microsorum □tohieaense (Polypodiaceae), a New Hybrid Fern from French Polynesia, with Implications for the Taxonomy of Microsorum. *Systematic Botany*, **2018**, 43, 397-413	0.7	4
18	PHYLOGENY OF ACRIDOCARPUS-BRACHYLOPHON (MALPIGHIACEAE): IMPLICATIONS FOR TERTIARY TROPICAL FLORAS AND AFROASIAN BIOGEOGRAPHY. *Evolution; International Journal of Organic Evolution*, **2002**, 56, 2395	3.8	4

17	Striking developmental convergence in angiosperm endoparasites. *American Journal of Botany*, **2021**, 108, 756-768	2.7	4
16	Ecophysiological differentiation between life stages in filmy ferns (Hymenophyllaceae). *Journal of Plant Research*, **2021**, 134, 971-988	2.6	4
15	Phylogenomics, divergence time estimation and trait evolution provide a new look into the Gracilariales (Rhodophyta). *Molecular Phylogenetics and Evolution*, **2021**, 165, 107294	4.1	4
14	Widespread homogenization of plant communities in the Anthropocene. *Nature Communications*, **2021**, 12, 6983	17.4	2
13	Andersoniodoxa, a replacement name for Andersoniella (Malpighiaceae). *Phytotaxa*, **2020**, 470, 121-122	0.7	2
12	Selfing species exhibit diminished niche breadth over time		2
11	Phytogeographic History of the Tea Family Inferred Through High-Resolution Phylogeny and Fossils. *Systematic Biology*, **2021**, 70, 1256-1271	8.4	2
10	Endoparasitic plants and fungi show evolutionary convergence across phylogenetic divisions. *New Phytologist*, **2021**, 232, 1159-1167	9.8	2
9	(2091) Proposal to conserve the name Mascagnia against Triopterys (Malpighiaceae). *Taxon*, **2012**, 61, 1124-1125	0.8	1
8	Andersoniella: A New Genus of Neotropical Malpighiaceae. *Harvard Papers in Botany*, **2020**, 25, 51	0.3	1
7	Widespread sampling biases in herbaria revealed from large-scale digitization		1
6	Response to Kozlov et al.: Inaccurate estimation of biases in herbarium specimen data		1
5	Back to the future: a refined single user photostation for massively scaling herbarium digitization		1
4	Back to the future: A refined single-user photostation for massively scaling herbarium digitization. *Taxon*, **2021**, 70, 635-643	0.8	1
3	Phylogenetic Relationships of Tovomita (Clusiaceae): Carpel Number and Geographic Distribution Speak Louder than Venation Pattern. *Systematic Botany*, **2021**, 46, 102-108	0.7	1
2	Phenological displacement is uncommon among sympatric angiosperms. *New Phytologist*, **2021**, 233, 1466	9.8	0
1	Parasitic flowering plant collections embody the extended specimen. *Methods in Ecology and Evolution*,	7.7	0