Charles C Davis

List of Publications by Year
in descending order

129 papers	11,099 citations	31902 53 h-index	34900 98 g-index
147 all docs	147 docs citations	147 times ranked	10514 citing authors

#	Article	IF	Citations
1	Angiosperm phylogeny: 17 genes, 640 taxa. American Journal of Botany, 2011, 98, 704-730.	0.8	590
2	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, 15511-15516.	3.3	579
3	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, 17029-17033.	3.3	515
4	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, 3853-3858.	3.3	382
5	The abiotic and biotic drivers of rapid diversification in <scp>A</scp>ndean bellflowers (Campanulaceae). New Phytologist, 2016, 210, 1430-1442.	3.5	325
6	Implementing and testing the multispecies coalescent model: A valuable paradigm for phylogenomics. Molecular Phylogenetics and Evolution, 2016, 94, 447-462.	1.2	321
7	Explosive Radiation of Malpighiales Supports a Midâ€Cretaceous Origin of Modern Tropical Rain Forests. American Naturalist, 2005, 165, E36-E65.	1.0	306
8	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, 17519-17524.	3.3	305
9	Laurasian migration explains Gondwanan disjunctions: Evidence from Malpighiaceae. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6833-6837.	3.3	300
10	Malpighiales phylogenetics: Gaining ground on one of the most recalcitrant clades in the angiosperm tree of life. American Journal of Botany, 2009, 96, 1551-1570.	0.8	283
11	Widespread sampling biases in herbaria revealed from largeâ€scale digitization. New Phytologist, 2018, 217, 939-955.	3.5	271
12	Host-to-Parasite Gene Transfer in Flowering Plants: Phylogenetic Evidence from Malpighiales. Science, 2004, 305, 676-678.	6.0	240
13	Old Plants, New Tricks: Phenological Research Using Herbarium Specimens. Trends in Ecology and Evolution, 2017, 32, 531-546.	4.2	232
14	Favorable Climate Change Response Explains Non-Native Species' Success in Thoreau's Woods. PLoS ONE, 2010, 5, e8878.	1.1	209
15	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, 1599-1609.	0.8	199
16	A complete generic phylogeny of Malpighiaceae inferred from nucleotide sequence data and morphology. American Journal of Botany, 2010, 97, 2031-2048.	0.8	167
17	Coalescent versus Concatenation Methods and the Placement of Amborella as Sister to Water Lilies. Systematic Biology, 2014, 63, 919-932.	2.7	166
18	Estimating phylogenetic trees from genomeâ€scale data. Annals of the New York Academy of Sciences, 2015, 1360, 36-53.	1.8	165

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19	Phylogenetic Analyses of Basal Angiosperms Based on Nine Plastid, Mitochondrial, and Nuclear Genes. International Journal of Plant Sciences, 2005, 166, 815-842.	0.6	162
20	Biological collections for understanding biodiversity in the Anthropocene. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20170386.	1.8	161
21	Digitization and the Future of Natural History Collections. BioScience, 2020, 70, 243-251.	2.2	161
22	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, 3201-3213.	1.8	154
23	Temperatureâ€dependent shifts in phenology contribute to the success of exotic species with climate change. American Journal of Botany, 2013, 100, 1407-1421.	0.8	140
24	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, 6388-6393.	3.3	134
25	The Impact of Missing Data on Species Tree Estimation. Molecular Biology and Evolution, 2016, 33, 838-860.	3.5	134
26	Record-Breaking Early Flowering in the Eastern United States. PLoS ONE, 2013, 8, e53788.	1.1	132
27	Evolutionary bursts in<i>Euphorbia</i>(Euphorbiaceae) are linked with photosynthetic pathway. Evolution; International Journal of Organic Evolution, 2014, 68, 3485-3504.	1.1	132
28	The unrealized potential of herbaria for global change biology. Ecological Monographs, 2018, 88, 505-525.	2.4	126
29	Phylogeny of Malpighiaceae: evidence from chloroplast ndhF and trnlâ€F nucleotide sequences. American Journal of Botany, 2001, 88, 1830-1846.	0.8	122
30	Leaf out times of temperate woody plants are related to phylogeny, deciduousness, growth habit and wood anatomy. New Phytologist, 2014, 203, 1208-1219.	3.5	122
31	Floral Gigantism in Rafflesiaceae. Science, 2007, 315, 1812-1812.	6.0	121
32	Phylogeny of the clusioid clade (Malpighiales): Evidence from the plastid and mitochondrial genomes. American Journal of Botany, 2011, 98, 306-325.	0.8	116
33	Gene transfer from a parasitic flowering plant to a fern. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 2237-2242.	1.2	115
34	Massive Mitochondrial Gene Transfer in a Parasitic Flowering Plant Clade. PLoS Genetics, 2013, 9, e1003265.	1.5	115
35	Genes with minimal phylogenetic information are problematic for coalescent analyses when gene tree estimation is biased. Molecular Phylogenetics and Evolution, 2015, 92, 63-71.	1.2	104
36	Molecular phylogenetics of Phyllanthaceae: evidence from plastid MATK and nuclear PHYC sequences. American Journal of Botany, 2005, 92, 132-141.	0.8	99

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37	PHYLOGENY OF ACRIDOCARPUS-BRACHYLOPHON (MALPIGHIACEAE): IMPLICATIONS FOR TERTIARY TROPICAL FLORAS AND AFROASIAN BIOGEOGRAPHY. Evolution; International Journal of Organic Evolution, 2002, 56, 2395-2405.	1.1	98
38	Elatinaceae are sister to Malpighiaceae; Peridiscaceae belong to Saxifragales. American Journal of Botany, 2004, 91, 262-273.	0.8	98
39	Horizontal transfer of expressed genes in a parasitic flowering plant. BMC Genomics, 2012, 13, 227.	1.2	90
40	Prickly waterlily and rigid hornwort genomes shed light on early angiosperm evolution. Nature Plants, 2020, 6, 215-222.	4.7	88
41	Widespread ancient wholeâ€genome duplications in Malpighiales coincide with Eocene global climatic upheaval. New Phytologist, 2019, 221, 565-576.	3.5	86
42	Long-term morphological stasis maintained by a plantâ€“pollinator mutualism. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5914-5919.	3.3	83
43	A statistical estimator for determining the limits of contemporary and historic phenology. Nature Ecology and Evolution, 2017, 1, 1876-1882.	3.4	81
44	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.	0.6	80
45	Horizontal gene transfer in parasitic plants. Current Opinion in Plant Biology, 2015, 26, 14-19.	3.5	78
46	Herbarium specimens reveal substantial and unexpected variation in phenological sensitivity across the eastern United States. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20170394.	1.8	75
47	Streptophyte Algae and the Origin of Land Plants Revisited Using Heterogeneous Models with Three New Algal Chloroplast Genomes. Molecular Biology and Evolution, 2014, 31, 177-183.	3.5	70
48	Highâ€Latitude Tertiary Migrations of an Exclusively Tropical Clade: Evidence from Malpighiaceae. International Journal of Plant Sciences, 2004, 165, S107-S121.	0.6	69
49	Phylogenomics and Coalescent Analyses Resolve Extant Seed Plant Relationships. PLoS ONE, 2013, 8, e80870.	1.1	69
50	Coalescent Methods Are Robust to the Simultaneous Effects of Long Branches and Incomplete Lineage Sorting. Molecular Biology and Evolution, 2015, 32, 791-805.	3.5	69
51	Repeated evolution of vertebrate pollination syndromes in a recently diverged Andean plant clade. Evolution; International Journal of Organic Evolution, 2017, 71, 1970-1985.	1.1	69
52	The evolution of floral gigantism. Current Opinion in Plant Biology, 2008, 11, 49-57.	3.5	64
53	Deeply Altered Genome Architecture in the Endoparasitic Flowering Plant Sapria himalayana Griff. (Rafflesiaceae). Current Biology, 2021, 31, 1002-1011.e9.	1.8	63
54	<i>CrowdCurio</i>: an online crowdsourcing platform to facilitate climate change studies using herbarium specimens. New Phytologist, 2017, 215, 479-488.	3.5	61

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55	Machine Learning Using Digitized Herbarium Specimens to Advance Phenological Research. BioScience, 2020, 70, 610-620.	2.2	61
56	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.	2.7	61
57	Plastid phylogenomics and green plant phylogeny: almost full circle but not quite there. BMC Biology, 2014, 12, 11.	1.7	58
58	Widespread homogenization of plant communities in the Anthropocene. Nature Communications, 2021, 12, 6983.	5.8	57
59	Divergent genetic mechanisms underlie reversals to radial floral symmetry from diverse zygomorphic flowered ancestors. Frontiers in Plant Science, 2013, 4, 302.	1.7	53
60	Phylogeny and Biogeography of the Carnivorous Plant Family Sarraceniaceae. PLoS ONE, 2012, 7, e39291.	1.1	50
61	Dispersal largely explains the Gondwanan distribution of the ancient tropical clusioid plant clade. American Journal of Botany, 2016, 103, 1117-1128.	0.8	50
62	Freezing and water availability structure the evolutionary diversity of trees across the Americas. Science Advances, 2020, 6, eaaz5373.	4.7	50
63	Holoparasitic Rafflesiaceae possess the most reduced endophytes and yet give rise to the world's largest flowers. Annals of Botany, 2014, 114, 233-242.	1.4	47
64	Implications and alternatives of assigning climate data to geographical centroids. Journal of Biogeography, 2017, 44, 2188-2198.	1.4	46
65	Digitization protocol for scoring reproductive phenology from herbarium specimens of seed plants. Applications in Plant Sciences, 2018, 6, e1022.	0.8	46
66	Extended flowering intervals of bamboos evolved by discrete multiplication. Ecology Letters, 2015, 18, 653-659.	3.0	42
67	Largeâ€“scale digitization of herbarium specimens: Development and usage of an automated, highâ€“throughput conveyor system. Taxon, 2018, 67, 165-178.	0.4	42
68	Reconstructing deepâ€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.	2.7	41
69	Life cycle matters: <scp>DNA</scp> barcoding reveals contrasting community structure between fern sporophytes and gametophytes. Ecological Monographs, 2017, 87, 278-296.	2.4	40
70	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.	0.6	39
71	Phylogeny of Gracilariaceae (Rhodophyta): evidence from plastid and mitochondrial nucleotide sequences. Journal of Phycology, 2015, 51, 356-366.	1.0	38
72	Phylogeny, classification, and fruit evolution of the species-rich Neotropical bellflowers (Campanulaceae: Lobelioideae). American Journal of Botany, 2014, 101, 2097-2112.	0.8	36

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73	Similar Genetic Mechanisms Underlie the Parallel Evolution of Floral Phenotypes. PLoS ONE, 2012, 7, e36033.	1.1	35
74	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, 969-985.	1.4	34
75	Phylogeny of the <i>Inula</i> group (Asteraceae: Inuleae): Evidence from nuclear and plastid genomes and a recircumscription of <i>Pentanema</i>. Taxon, 2018, 67, 149-164.	0.4	33
76	Water lily (<i>Nymphaea thermarum</i>) 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.	3.3	33
77	The establishment of Central American migratory corridors and the biogeographic origins of seasonally dry tropical forests in Mexico. Frontiers in Genetics, 2014, 5, 433.	1.1	32
78	Developmental origins of the worldâ€™s largest flowers, Rafflesiaceae. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18578-18583.	3.3	29
79	A New Method for Counting Reproductive Structures in Digitized Herbarium Specimens Using Mask R-CNN. Frontiers in Plant Science, 2020, 11, 1129.	1.7	28
80	Differential Expression of <i>CYC2</i> Genes and the Elaboration of Floral Morphologies in <i>Hiptage</i>, an Old World Genus of Malpighiaceae. International Journal of Plant Sciences, 2016, 177, 551-558.	0.6	27
81	Life history, diversity, and distribution in parasitic flowering plants. Plant Physiology, 2021, 187, 32-51.	2.3	27
82	Floral structure and development in Rafflesiaceae with emphasis on their exceptional gynoecia. American Journal of Botany, 2014, 101, 225-243.	0.8	24
83	Reading between the vines: Hosts as islands for extreme holoparasitic plants. American Journal of Botany, 2017, 104, 1382-1389.	0.8	24
84	<i>Madagasikaria</i> (Malpighiaceae): a new genus from Madagascar with implications for floral evolution in Malpighiaceae. American Journal of Botany, 2002, 89, 699-706.	0.8	23
85	Life in the canopy: community trait assessments reveal substantial functional diversity among fern epiphytes. New Phytologist, 2020, 227, 1885-1899.	3.5	23
86	Phenological sensitivity to temperature mediates herbivory. Global Change Biology, 2021, 27, 2315-2327.	4.2	23
87	Phylogenomics, divergence time estimation and trait evolution provide a new look into the Gracilariales (Rhodophyta). Molecular Phylogenetics and Evolution, 2021, 165, 107294.	1.2	22
88	Phylogeny of Elatinaceae and the Tropical Gondwanan Origin of the Centroplacaceae(Malpighiaceae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.1	22
89	Spatial patterns and driving factors of carbon stocks in mangrove forests on Hainan Island, China. Global Ecology and Biogeography, 2022, 31, 1692-1706.	2.7	21
90	Phylogenetic Placement of <i>Rheopteris</i> and the Polyphyly of <i>Monogramma</i> (Pteridaceae) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.2	20

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91	Delimitating cryptic species in the <i>Gracilaria domingensis</i> complex (Gracilariaceae, Rhodophyta) using molecular and morphological data. Journal of Phycology, 2016, 52, 997-1017.	1.0	20
92	Unraveling the biogeographical history of Chrysobalanaceae from plastid genomes. American Journal of Botany, 2016, 103, 1089-1102.	0.8	20
93	The big, the bad, and the beautiful: Biology of the world's largest flowers. Journal of Systematics and Evolution, 2017, 55, 516-524.	1.6	20
94	EXPANSION OF DIPLOPTERYS AT THE EXPENSE OF BANISTERIOPSIS (MALPIGHIACEAE). Harvard Papers in Botany, 2006, 11, 1-16.	0.1	19
95	Plastomes resolve generic limits within tribe Clusieae (Clusiaceae) and reveal the new genus Arawakia. Molecular Phylogenetics and Evolution, 2019, 134, 142-151.	1.2	19
96	Diverse trajectories of plastome degradation in holoparasitic Cistanche and genomic location of the lost plastid genes. Journal of Experimental Botany, 2020, 71, 877-892.	2.4	19
97	Machine learning predicts large scale declines in native plant phylogenetic diversity. New Phytologist, 2020, 227, 1544-1556.	3.5	19
98	Pitcher Plants (<I>Sarracenia</I>) 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.	0.2	18
99	Plastome phylogenomics, systematics, and divergence time estimation of the Beilschmiedia group (Lauraceae). Molecular Phylogenetics and Evolution, 2020, 151, 106901.	1.2	18
100	Phytogeographic History of the Tea Family Inferred Through High-Resolution Phylogeny and Fossils. Systematic Biology, 2021, 70, 1256-1271.	2.7	18
101	Organellar genomics: a useful tool to study evolutionary relationships and molecular evolution in Gracilariaceae (Rhodophyta). Journal of Phycology, 2018, 54, 775-787.	1.0	17
102	New directions in tropical phenology. Trends in Ecology and Evolution, 2022, 37, 683-693.	4.2	16
103	Plant Evolution: Pulses of Extinction and Speciation in Gymnosperm Diversity. Current Biology, 2011, 21, R995-R998.	1.8	15
104	Mating system does not predict niche breath. Global Ecology and Biogeography, 2018, 27, 804-813.	2.7	15
105	Floral Evolution: Dramatic Size Change Was Recent and Rapid in theÂWorld's Largest Flowers. Current Biology, 2008, 18, R1102-R1104.	1.8	14
106	PhyloHerb: A highâ€throughput phylogenomic pipeline for processing genome skimming data. Applications in Plant Sciences, 2022, 10, .	0.8	14
107	Deep Genetic Divergence between Disjunct Refugia in the Arctic-Alpine Kingâ€™s Crown, Rhodiola integrifolia (Crassulaceae). PLoS ONE, 2013, 8, e79451.	1.1	13
108	Endoparasitic plants and fungi show evolutionary convergence across phylogenetic divisions. New Phytologist, 2021, 232, 1159-1167.	3.5	13

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109	Phenological displacement is uncommon among sympatric angiosperms. New Phytologist, 2022, 233, 1466-1478.	3.5	13
110	Evolution: Pollen or PollinatorsÂâ€"ÂWhich Came First?. Current Biology, 2013, 23, R316-R318.	1.8	12
111	Striking developmental convergence in angiosperm endoparasites. American Journal of Botany, 2021, 108, 756-768.	0.8	12
112	An invasive species spread by threatened diurnal lemurs impacts rainforest structure in Madagascar. Biological Invasions, 2020, 22, 2845-2858.	1.2	10
113	Shrinking Habitats and Native Species Loss Under Climate Change: A Multifactorial Risk Assessment of China's Inland Wetlands. Earth's Future, 2022, 10, .	2.4	10
114	Species Tree Estimation and the Impact of Gene Loss Following Whole-Genome Duplication. Systematic Biology, 2022, 71, 1348-1361.	2.7	10
115	Rethinking migration. Science, 2015, 348, 766-766.	6.0	8
116	Ecophysiological differentiation between life stages in filmy ferns (Hymenophyllaceae). Journal of Plant Research, 2021, 134, 971-988.	1.2	8
117	The New England Vascular Plants Project: 295,000 specimens and counting. Rhodora, 2016, 118, 324-325.	0.0	7
118	<i>Microsorum</i> Ã— <i>tohieaense</i> (Polypodiaceae), a New Hybrid Fern from French Polynesia, with Implications for the Taxonomy of <i>Microsorum</i>. Systematic Botany, 2018, 43, 397-413.	0.2	7
119	A pragmatic and prudent consensus on the resurrection of extinct plant species using herbarium specimens. Taxon, 2022, 71, 168-177.	0.4	7
120	Parasitic flowering plant collections embody the extended specimen. Methods in Ecology and Evolution, 2023, 14, 319-331.	2.2	7
121	PHYLOGENY OF ACRIDOCARPUS-BRACHYLOPHON (MALPIGHIACEAE): IMPLICATIONS FOR TERTIARY TROPICAL FLORAS AND AFROASIAN BIOGEOGRAPHY. Evolution; International Journal of Organic Evolution, 2002, 56, 2395.	1.1	4
122	(2091) Proposal to conserve the name Mascagnia against Triopterys (Malpighiaceae). Taxon, 2012, 61, 1124-1125.	0.4	4
123	Back to the future: A refined singleâ€user photostation for massively scaling herbarium digitization. Taxon, 2021, 70, 635-643.	0.4	4
124	Andersoniella: A New Genus of Neotropical Malpighiaceae. Harvard Papers in Botany, 2020, 25, 51.	0.1	4
125	Andersoniodoxa, a replacement name for Andersoniella (Malpighiaceae) . Phytotaxa, 2020, 470, 121-122.	0.1	3
126	Species delimitation of North American Nyssa species. Journal of Systematics and Evolution, 0, , .	1.6	2

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127	Social media are fuelling the Amazonâ€™s destruction. Nature, 2020, 580, 321-321.	13.7	2
128	Climate change: how to pack a punch at meetings. Nature, 2020, 577, 472-472.	13.7	1
129	Phylogenetic Relationships of Tovomita (Clusiaceae): Carpel Number and Geographic Distribution Speak Louder than Venation Pattern. Systematic Botany, 2021, 46, 102-108.	0.2	1