

Frank W Davis

List of Publications by Citations

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103
papers

5,704
citations

39
h-index

74
g-index

108
ext. papers

6,311
ext. citations

5.3
avg, IF

5.42
L-index

#	Paper	IF	Citations
103	NATURE RESERVES: DO THEY CAPTURE THE FULL RANGE OF AMERICAS BIOLOGICAL DIVERSITY? 2001 , 11, 999-1007		431
102	Reserve selection as a maximal covering location problem. <i>Biological Conservation</i> , 1996 , 76, 105-112	6.2	342
101	The impacts of increasing drought on forest dynamics, structure, and biodiversity in the United States. <i>Global Change Biology</i> , 2016 , 22, 2329-52	11.4	297
100	Tree mortality predicted from drought-induced vascular damage. <i>Nature Geoscience</i> , 2015 , 8, 367-371	18.3	245
99	Modeling plant species distributions under future climates: how fine scale do climate projections need to be?. <i>Global Change Biology</i> , 2013 , 19, 473-83	11.4	237
98	Pollen movement in declining populations of California Valley oak, <i>Quercus lobata</i> : where have all the fathers gone?. <i>Molecular Ecology</i> , 2002 , 11, 1657-68	5.7	193
97	Gene movement and genetic association with regional climate gradients in California valley oak (<i>Quercus lobata</i> NÉ) in the face of climate change. <i>Molecular Ecology</i> , 2010 , 19, 3806-23	5.7	180
96	Monitoring plant functional diversity from space. <i>Nature Plants</i> , 2016 , 2, 16024	11.5	164
95	Foundations of translational ecology. <i>Frontiers in Ecology and the Environment</i> , 2017 , 15, 541-550	5.5	148
94	FIRE, SOIL HEATING, AND THE FORMATION OF VEGETATION PATTERNS IN CHAPARRAL. <i>Ecological Monographs</i> , 2000 , 70, 149-169	9	137
93	Regression Tree Analysis of satellite and terrain data to guide vegetation sampling and surveys. <i>Journal of Vegetation Science</i> , 1994 , 5, 673-686	3.1	131
92	Sources of variation in radiometric surface temperature over a tallgrass prairie. <i>Remote Sensing of Environment</i> , 1994 , 48, 1-17	13.2	130
91	Vegetation Dynamics, Fire, and the Physical Environment in Coastal Central California. <i>Ecology</i> , 1993 , 74, 1567-1578	4.6	125
90	Modeling vegetation pattern using digital terrain data. <i>Landscape Ecology</i> , 1990 , 4, 69-80	4.3	125
89	Interactions of Factors Affecting Seedling Recruitment of Blue Oak (<i>Quercus Douglasii</i>) in California. <i>Ecology</i> , 1989 , 70, 389-404	4.6	110
88	Demography and recruitment limitations of three oak species in California. <i>Quarterly Review of Biology</i> , 2006 , 81, 127-52	5.4	108
87	Science Priorities for Reducing the Threat of Invasive Species to Sustainable Forestry. <i>BioScience</i> , 2005 , 55, 335	5.7	96

86	Complexity in Ecology and Conservation: Mathematical, Statistical, and Computational Challenges. <i>BioScience</i> , 2005 , 55, 501	5.7	95
85	Estimating grassland biomass and leaf area index using ground and satellite data. <i>International Journal of Remote Sensing</i> , 1994 , 15, 1401-1420	3.1	95
84	Recruitment of <i>Quercus agrifolia</i> in central California: the importance of shrub-dominated patches. <i>Journal of Vegetation Science</i> , 1998 , 9, 647-656	3.1	86
83	Coupling GIS and LCA for biodiversity assessments of land use. <i>International Journal of Life Cycle Assessment</i> , 2010 , 15, 454-467	4.6	84
82	Scaling and uncertainty in the relationship between the NDVI and land surface biophysical variables: An analysis using a scene simulation model and data from FIFE. <i>Remote Sensing of Environment</i> , 1995 , 54, 233-246	13.2	83
81	Integrated coastal reserve planning: making the land-sea connection. <i>Frontiers in Ecology and the Environment</i> , 2005 , 3, 429-436	5.5	79
80	Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems 2018 , 28, 749-760		69
79	Gene flow and fine-scale genetic structure in a wind-pollinated tree species, <i>Quercus lobata</i> (Fagaceae). <i>American Journal of Botany</i> , 2005 , 92, 252-61	2.7	68
78	Conserving the evolutionary potential of California valley oak (<i>Quercus lobata</i> NÉ): a multivariate genetic approach to conservation planning. <i>Molecular Ecology</i> , 2008 , 17, 139-56	5.7	64
77	An information systems approach to the preservation of biological diversity. <i>International Journal of Geographical Information Science</i> , 1990 , 4, 55-78	4.1	63
76	A Convolutional Neural Network Classifier Identifies Tree Species in Mixed-Conifer Forest from Hyperspectral Imagery. <i>Remote Sensing</i> , 2019 , 11, 2326	5	61
75	Coupling GIS and LCA for biodiversity assessments of land use. <i>International Journal of Life Cycle Assessment</i> , 2010 , 15, 692-703	4.6	60
74	Short distance pollen movement in a wind-pollinated tree, <i>Quercus lobata</i> (Fagaceae). <i>Forest Ecology and Management</i> , 2009 , 258, 735-744	3.9	59
73	Siting solar energy development to minimize biological impacts. <i>Renewable Energy</i> , 2013 , 57, 289-298	8.1	57
72	Fuzzy assessment of land suitability for scientific research reserves. <i>Environmental Management</i> , 2002 , 29, 545-58	3.1	50
71	Bioclimatic velocity: the pace of species exposure to climate change. <i>Diversity and Distributions</i> , 2014 , 20, 169-180	5	49
70	Comprehensive criteria for biodiversity evaluation in conservation planning. <i>Biodiversity and Conservation</i> , 2007 , 16, 2715-2728	3.4	48
69	A riparian conservation network for ecological resilience. <i>Biological Conservation</i> , 2015 , 191, 29-37	6.2	47

68	An introduction to biodiversity concepts for environmental economists. <i>Resources and Energy Economics</i> , 2004 , 26, 115-136	3.2	45
67	400 YEARS OF CENTRAL CALIFORNIA PRECIPITATION VARIABILITY RECONSTRUCTED FROM TREE-RINGS ¹ . <i>Journal of the American Water Resources Association</i> , 1987 , 23, 809-818	2.1	43
66	Pre-impact forest composition and ongoing tree mortality associated with sudden oak death in the Big Sur region; California. <i>Forest Ecology and Management</i> , 2010 , 259, 2342-2354	3.9	42
65	Stratigraphic Evidence of Human Disturbance in an Estuary. <i>Quaternary Research</i> , 1984 , 22, 91-108	1.9	40
64	The relative importance of factors affecting age-specific seedling survival of two co-occurring oak species in southern California. <i>Forest Ecology and Management</i> , 2008 , 255, 3063-3074	3.9	38
63	Estimating anisotropic pollen dispersal: a case study in <i>Quercus lobata</i> . <i>Heredity</i> , 2007 , 99, 193-204	3.6	38
62	Efficient Conservation in a Utility-Maximization Framework. <i>Ecology and Society</i> , 2006 , 11,	4.1	38
61	Distribution and conservation status of coastal sage scrub in southwestern California. <i>Journal of Vegetation Science</i> , 1994 , 5, 743-756	3.1	38
60	The effects of changes in loblolly pine biomass and soil moisture on ERS-1 SAR backscatter. <i>Remote Sensing of Environment</i> , 1994 , 49, 25-31	13.2	37
59	The effects of changes in forest biomass on radar backscatter from tree canopies. <i>International Journal of Remote Sensing</i> , 1995 , 16, 503-513	3.1	36
58	Historical Changes in Submerged Macrophyte Communities of Upper Chesapeake Bay. <i>Ecology</i> , 1985 , 66, 981-993	4.6	36
57	High and dry: high elevations disproportionately exposed to regional climate change in Mediterranean-climate landscapes. <i>Landscape Ecology</i> , 2016 , 31, 1063-1075	4.3	35
56	Developing a translational ecology workforce. <i>Frontiers in Ecology and the Environment</i> , 2017 , 15, 587-596	5.5	34
55	Regional variation in home-range-scale habitat models for fisher (<i>Martes pennanti</i>) in California 2007 , 17, 2195-213		34
54	Establishment of microscale vegetation pattern in maritime chaparral after fire. <i>Plant Ecology</i> , 1989 , 84, 53-67		34
53	Shifting Baselines in a California Oak Savanna: Nineteenth Century Data to Inform Restoration Scenarios. <i>Restoration Ecology</i> , 2011 , 19, 88-101	3.1	33
52	Viable Reserve Networks Arise From Individual Landholder Responses To Conservation Incentives. <i>Ecology and Society</i> , 2006 , 11,	4.1	31
51	Synthesis Centers as Critical Research Infrastructure. <i>BioScience</i> , 2017 , 67, 750-759	5.7	29

50	Strategic targeting of agricultural conservation easements as a growth management tool. <i>Land Use Policy</i> , 2009 , 26, 1149-1161	5.6	29
49	Covariance of biophysical data with digital topographic and land use maps over the FIFE site. <i>Journal of Geophysical Research</i> , 1992 , 97, 19009		29
48	A range of possibilities: Assessing geographic variation in climate sensitivity of ponderosa pine using tree rings. <i>Forest Ecology and Management</i> , 2017 , 402, 223-233	3.9	27
47	Implementation strategies for systematic conservation planning. <i>Ambio</i> , 2019 , 48, 139-152	6.5	25
46	Thematic mapper analysis of tree cover in semiarid woodlands using a model of canopy shadowing. <i>Remote Sensing of Environment</i> , 1991 , 36, 189-202	13.2	25
45	Sensitivity of Modeled C- and L-Band Radar Backscatter to Ground Surface Parameters in Loblolly Pine Forest. <i>Remote Sensing of Environment</i> , 1998 , 66, 331-342	13.2	23
44	Hierarchical representations of species distributions using maps, images and sighting data 1994 , 71-88		23
43	Modeling wildlife and other trade-offs with biofuel crop production. <i>GCB Bioenergy</i> , 2012 , 4, 330-341	5.6	22
42	Cross-scale modeling of surface temperature and tree seedling establishment in mountain landscapes. <i>Ecological Processes</i> , 2013 , 2,	3.6	22
41	Shrinking windows of opportunity for oak seedling establishment in southern California mountains. <i>Ecosphere</i> , 2016 , 7, e01573	3.1	21
40	Consumer control of oak demography in a Mediterranean-climate savanna. <i>Ecosphere</i> , 2011 , 2, art108	3.1	20
39	Decomposition of polarimetric synthetic aperture radar backscatter from upland and flooded forests. <i>International Journal of Remote Sensing</i> , 1997 , 18, 1319-1332	3.1	20
38	Averaged 30 year climate change projections mask opportunities for species establishment. <i>Ecography</i> , 2016 , 39, 844-845	6.5	20
37	Adapting California's Ecosystems to a Changing Climate. <i>BioScience</i> , 2015 , 65, 247-262	5.7	18
36	TAMARIN: a landscape framework for evaluating economic incentives for rainforest restoration. <i>Landscape and Urban Planning</i> , 2004 , 68, 95-108	7.7	18
35	Performance analysis of image processing algorithms for classification of natural vegetation in the mountains of Southern California. <i>International Journal of Remote Sensing</i> , 1986 , 7, 683-702	3.1	18
34	Selecting conservation reserves using species-covering models: Adapting the ARC/INFO GIS. <i>Transactions in GIS</i> , 1997 , 2, 45-60	2.1	17
33	More than climate? Predictors of tree canopy height vary with scale in complex terrain, Sierra Nevada, CA (USA). <i>Forest Ecology and Management</i> , 2019 , 434, 142-153	3.9	17

32	Conservation Planning for Offsetting the Impacts of Development: A Case Study of Biodiversity and Renewable Energy in the Mojave Desert. <i>PLoS ONE</i> , 2015 , 10, e0140226	3.7	16
31	California forests show early indications of both range shifts and local persistence under climate change. <i>Global Ecology and Biogeography</i> , 2016 , 25, 164-175	6.1	16
30	Carnivore use of avocado orchards across an agricultural-wildland gradient. <i>PLoS ONE</i> , 2013 , 8, e68025	3.7	15
29	Geographic Analysis of California Condor Sighting Data. <i>Conservation Biology</i> , 1993 , 7, 148-159	6	15
28	LiDAR-derived topography and forest structure predict fine-scale variation in daily surface temperatures in oak savanna and conifer forest landscapes. <i>Agricultural and Forest Meteorology</i> , 2019 , 269-270, 192-202	5.8	13
27	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1993 , 31, 871-879	8.1	13
26	A State-Based National Network for Effective Wildlife Conservation. <i>BioScience</i> , 2012 , 62, 970-976	5.7	11
25	The power of information for targeting cost-effective conservation investments in multifunctional farmlands. <i>Environmental Modelling and Software</i> , 2011 , 26, 8-17	5.2	9
24	Applications of remote sensing and geographic information systems in vegetation science: Introduction. <i>Journal of Vegetation Science</i> , 1994 , 5, 609-614	3.1	9
23	Topographic distribution of clear-sky radiation over the Konza Prairie, Kansas. <i>Water Resources Research</i> , 1990 , 26, 679-690	5.4	9
22	Spatial Simulation of Fire Regime in Mediterranean-Climate Landscapes. <i>Ecological Studies</i> , 1994 , 117-130	1	9
21	The terrestrial organism and biogeochemistry spatial sampling design for the National Ecological Observatory Network. <i>Ecosphere</i> , 2019 , 10, e02540	3.1	8
20	Landscape effects on wild <i>Bombus terrestris</i> (Hymenoptera: Apidae) queens visiting highbush blueberry fields in south-central Chile. <i>Apidologie</i> , 2016 , 47, 711-716	2.3	8
19	Can Orchards Help Connect Mediterranean Ecosystems? Animal Movement Data Alter Conservation Priorities. <i>American Midland Naturalist</i> , 2015 , 174, 105-116	0.7	6
18	Scalable mapping and monitoring of Mediterranean-climate oak landscapes with temporal mixture models. <i>Remote Sensing of Environment</i> , 2020 , 247, 111937	13.2	6
17	Inclusion of a Simple Multiple Scattering Model into a Microwave Canopy Backscatter Model. <i>Remote Sensing of Environment</i> , 1998 , 63, 101-111	13.2	6
16	CLIMATE RESPONSE FUNCTIONS FOR BIGCONE SPRUCE: A MEDITERRANEAN CLIMATE CONIFER. <i>Physical Geography</i> , 1988 , 9, 81-97	1.8	6
15	Optimization in the utility maximization framework for conservation planning: a comparison of solution procedures in a study of multifunctional agriculture. <i>PeerJ</i> , 2014 , 2, e690	3.1	6

14	Demography of evergreen and deciduous oaks in a mixed oak savanna: insights from a long-term experiment. <i>Ecosphere</i> , 2019 , 10, e02570	3.1	5
13	FIRE, SOIL HEATING, AND THE FORMATION OF VEGETATION PATTERNS IN CHAPARRAL 2000 , 70, 149		5
12	Evaluating Drought Impact on Postfire Recovery of Chaparral Across Southern California. <i>Ecosystems</i> , 2020 , 2020, 806	3.9	5
11	Does short-interval fire inhibit postfire recovery of chaparral across southern California?. <i>Science of the Total Environment</i> , 2021 , 751, 142271	10.2	5
10	Geographic Object-Based Image Analysis Framework for Mapping Vegetation Physiognomic Types at Fine Scales in Neotropical Savannas. <i>Remote Sensing</i> , 2020 , 12, 1721	5	4
9	The Nature of Gap Analysis. <i>BioScience</i> , 1996 , 46, 74-75	5.7	4
8	Modeling Fire Regime in Mediterranean Landscapes. <i>Lecture Notes in Biomathematics</i> , 1993 , 247-259		4
7	Morphologic Variation and Age Structure in a Population of the Eastern Mole, <i>Scalopus aquaticus</i> . <i>Journal of Mammalogy</i> , 1993 , 74, 1014-1025	1.8	3
6	Adapting to climate change in California. <i>Bulletin of the Atomic Scientists</i> , 2014 , 70, 62-73	1.6	2
5	Stand Structure in Terrestrial Ecosystems 2000 , 7-30		2
4	Synergies Among Environmental Science Research and Monitoring Networks: A Research Agenda. <i>Earths Future</i> , 2021 , 9, e2020EF001631	7.9	2
3	Disturbance, Mechanisms of 2013 , 562-567		1
2	Increasing the Impact of Public Engagement Within and Beyond the Ecological Society of America. <i>Bulletin of the Ecological Society of America</i> , 2020 , 101, e01773	0.7	1
1	More Trees Are Dying Due to Drought and Wildfire but Do Not Lose Sight of Forest Pathogens. <i>Earths Future</i> , 2020 , 8, e2020EF001792	7.9	