Thomas W Giambelluca

List of Publications by Year
in descending order

130	7,248	76294	64755
papers	citations	40 h-index	79 g-index

138	138	138	8698
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global risk of deadly heat. Nature Climate Change, 2017, 7, 501-506.	8.1	887
2	The projected timing of climate departure from recent variability. Nature, 2013, 502, 183-187.	13.7	579
3	Online Rainfall Atlas of Hawaiâ€˜i. Bulletin of the American Meteorological Society, 2013, 94, 313-316.	1.7	527
4	The hydrology of the humid tropics. Nature Climate Change, 2012, 2, 655-662.	8.1	284
5	Importance of rural roads as source areas for runoff in mountainous areas of northern Thailand. Journal of Hydrology, 1997, 196, 204-229.	2.3	173
6	Faster returns on â€˜leaf economicsâ€™ and different biogeochemical niche in invasive compared with native plant species. Global Change Biology, 2010, 16, 2171-2185.	4.2	157
7	Environmental Consequences of the Demise in Swidden Cultivation in Montane Mainland Southeast Asia: Hydrology and Geomorphology. Human Ecology, 2009, 37, 361-373.	0.7	154
8	Hydrological consequences of landscape fragmentation in mountainous northern Vietnam: evidence of accelerated overland flow generation. Journal of Hydrology, 2004, 287, 124-146.	2.3	150
9	Inversion Variability in the Hawaiian Trade Wind Regime. Journal of Climate, 2007, 20, 1145-1160.	1.2	148
10	Title is missing!. , 1998, 39, 503-517.		130
11	Small islands, valuable insights: systems of customary resource use and resilience to climate change in the Pacific. Ecology and Society, 2014, 19, .	1.0	126
12	ForestGEO: Understanding forest diversity and dynamics through a global observatory network. Biological Conservation, 2021, 253, 108907.	1.9	122
13	Secular temperature changes in Hawaiâ€˜i. Geophysical Research Letters, 2008, 35, .	1.5	121
14	Hydrologic effects of the expansion of rubber (Hevea brasiliensis) in a tropical catchment. Ecohydrology, 2010, 3, 306-314.	1.1	109
15	Runoff generation and sediment production on unpaved roads, footpaths and agricultural land surfaces in northern Thailand. , 2000, 25, 519-534.		108
16	Evapotranspiration and energy balance of Brazilian savannas with contrasting tree density. Agricultural and Forest Meteorology, 2009, 149, 1365-1376.	1.9	105
17	Hydrology of altered tropical forest. Hydrological Processes, 2002, 16, 1665-1669.	1.1	99
18	Comparison of geostatistical approaches to spatially interpolate monthâ€year rainfall for the Hawaiian Islands. International Journal of Climatology, 2016, 36, 1459-1470.	1.5	99

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19	Statistical downscaling of rainfall changes in Hawaiâ€˜i based on the CMIP5 global model projections. Journal of Geophysical Research D: Atmospheres, 2015, 120, 92-112.	1.2	98
20	Controls on stand transpiration and soil water utilization along a tree density gradient in a Neotropical savanna. Agricultural and Forest Meteorology, 2008, 148, 839-849.	1.9	96
21	Toward understanding the cumulative impacts of roads in upland agricultural watersheds of northern Thailand. Agriculture, Ecosystems and Environment, 2004, 104, 145-158.	2.5	93
22	Interstorm surface preparation and sediment detachment by vehicle traffic on unpaved mountain roads. Earth Surface Processes and Landforms, 2001, 26, 235-250.	1.2	85
23	Changing climate and the altitudinal range of avian malaria in the Hawaiian Islands â€“ an ongoing conservation crisis on the island of Kaua'i. Global Change Biology, 2014, 20, 2426-2436.	4.2	83
24	Spatial trend analysis of Hawaiian rainfall from 1920 to 2012. International Journal of Climatology, 2017, 37, 2522-2531.	1.5	82
25	Transpiration in a small tropical forest patch. Agricultural and Forest Meteorology, 2003, 117, 1-22.	1.9	74
26	Simulating Land-Cover Change in Montane Mainland Southeast Asia. Environmental Management, 2012, 49, 968-979.	1.2	74
27	Local hydrologic effects of introducing nonâ€native vegetation in a tropical catchment. Ecohydrology, 2008, 1, 13-22.	1.1	69
28	Uncertainty of Groundwater Vulnerability Assessments for Agricultural Regions in Hawaii: Review. Journal of Environmental Quality, 1996, 25, 475-490.	1.0	68
29	Evapotranspiration and energy balance of native wet montane cloud forest in Hawaiâ€˜i. Agricultural and Forest Meteorology, 2009, 149, 230-243.	1.9	67
30	Use of the distributed hydrology soil vegetation model to study road effects on hydrological processes in Pang Khum Experimental Watershed, northern Thailand. Forest Ecology and Management, 2006, 224, 81-94.	1.4	64
31	Throughfall in an evergreen-dominated forest stand in northern Thailand: Comparison of mobile and stationary methods. Agricultural and Forest Meteorology, 2009, 149, 373-384.	1.9	64
32	Rainfall partitioning and cloud water interception in native forest and invaded forest in Hawai'i Volcanoes National Park. Hydrological Processes, 2011, 25, 448-464.	1.1	60
33	Impact of uncertainty in soil, climatic, and chemical information in a pesticide leaching assessment. Journal of Contaminant Hydrology, 1990, 5, 171-194.	1.6	59
34	Evapotranspiration of rubber (Hevea brasiliensis) cultivated at two plantation sites in <scp>S</scp>outheast <scp>A</scp>sia. Water Resources Research, 2016, 52, 660-679.	1.7	58
35	Throughfall partitioning by trees. Hydrological Processes, 2019, 33, 1698-1708.	1.1	53
36	Erosion Potential under Miconia calvescens Stands on the Island of Hawaiâ€˜i. Land Degradation and Development, 2015, 26, 218-226.	1.8	50

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37	Climateâ€associated population declines reverse recovery and threaten future of an iconic highâ€elevation plant. Global Change Biology, 2013, 19, 911-922.	4.2	49
38	Hydrological consequences of landscape fragmentation in mountainous northern Vietnam: Buffering of Hortonian overland flow. Journal of Hydrology, 2007, 337, 52-67.	2.3	47
39	DBCP, EDB, and TCP Contamination of Ground Water in Hawaii. Ground Water, 1987, 25, 693-702.	0.7	46
40	Observations of Albedo and Radiation Balance over Postforest Land Surfaces in the Eastern Amazon Basin. Journal of Climate, 1997, 10, 919-928.	1.2	45
41	Turbidity-based sediment monitoring in northern Thailand: Hysteresis, variability, and uncertainty. Journal of Hydrology, 2014, 519, 2020-2039.	2.3	45
42	Changes in the vertical profiles of mean temperature and humidity in the Hawaiian Islands. Global and Planetary Change, 2011, 77, 21-25.	1.6	43
43	Partitioning total erosion on unpaved roads into splash and hydraulic components: The roles of interstorm surface preparation and dynamic erodibility. Water Resources Research, 2000, 36, 2787-2791.	1.7	42
44	Lumped parameter sensitivity analysis of a distributed hydrological model within tropical and temperate catchments. Hydrological Processes, 2011, 25, 2405-2421.	1.1	42
45	Near-surface hydrologic response for a steep, unchanneled catchment near Coos Bay, Oregon: 1. sprinkling experiments. Numerische Mathematik, 2007, 307, 678-708.	0.7	41
46	Climate sensitive size-dependent survival in tropical trees. Nature Ecology and Evolution, 2018, 2, 1436-1442.	3.4	41
47	Acceleration of Horton overland flow and erosion by footpaths in an upland agricultural watershed in northern Thailand. Geomorphology, 2001, 41, 249-262.	1.1	40
48	Canopy water balance of windward and leeward Hawaiian cloud forests on HaleakalÄ; Maui, Hawai'i. Hydrological Processes, 2011, 25, 438-447.	1.1	39
49	Horton overland flow contribution to runoff on unpaved mountain roads: A case study in northern Thailand. Hydrological Processes, 2001, 15, 3203-3208.	1.1	36
50	Erosion prediction on unpaved mountain roads in northern Thailand: validation of dynamic erodibility modelling using KINEROS2. Hydrological Processes, 2001, 15, 337-358.	1.1	36
51	Sustained Increases in Lower-Tropospheric Subsidence over the Central Tropical North Pacific Drive a Decline in High-Elevation Rainfall in Hawaii. Journal of Climate, 2015, 28, 8743-8759.	1.2	36
52	Compilation of climate data from heterogeneous networks across the Hawaiian Islands. Scientific Data, 2018, 5, 180012.	2.4	36
53	Dry-season radiation balance of land covers replacing forest in northern Thailand. Agricultural and Forest Meteorology, 1999, 95, 53-65.	1.9	34
54	Changes in atmospheric circulation patterns associated with high and low rainfall regimes in the Hawaiian Islands region on multiple time scales. Global and Planetary Change, 2012, 98-99, 97-108.	1.6	34

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55	Uncertainty in recharge estimation: impact on groundwater vulnerability assessments for the Pearl Harbor Basin, O'ahu, Hawai'i, U.S.A.. Journal of Contaminant Hydrology, 1996, 23, 85-112.	1.6	33
56	Reduction of Stream Sediment Concentration by a Riparian Buffer: Filtering of Road Runoff in Disturbed Headwater Basins of Montane Mainland Southeast Asia. Journal of Environmental Quality, 2006, 35, 151-162.	1.0	32
57	Transpiration characteristics of a rubber plantation in central Cambodia. Tree Physiology, 2014, 34, 285-301.	1.4	32
58	Estimation of Root Zone Soil Moisture Using Apparent Thermal Inertia With MODIS Imagery Over a Tropical Catchment in Northern Thailand. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 752-761.	2.3	31
59	Moisture status during a strong El NiÃ±o explains a tropical montane cloud forestâ€™s upper limit. Oecologia, 2014, 175, 273-284.	0.9	31
60	Latent and Sensible Energy Flux Over Deforested Land Surfaces in the Eastern Amazon and Northern Thailand. Singapore Journal of Tropical Geography, 2000, 21, 107-130.	0.6	30
61	How do rubber (Hevea brasiliensis) plantations behave under seasonal water stress in northeastern Thailand and central Cambodia?. Agricultural and Forest Meteorology, 2015, 213, 10-22.	1.9	30
62	Supercooling Capacity Increases from Sea Level to Tree Line in the Hawaiian Tree Species Metrosideros polymorpha. International Journal of Plant Sciences, 2000, 161, 369-379.	0.6	29
63	Photosynthetic gas exchange and temperature-induced damage in seedlings of the tropical alpine species Argyroxiphium sandwicense. Oecologia, 1996, 106, 298-307.	0.9	27
64	The roles of roads and agricultural land use in altering hydrological processes in Nam Mae Rim watershed, northern Thailand. Hydrological Processes, 2008, 22, 4339-4354.	1.1	27
65	Determinants of thermal balance in the Hawaiian giant rosette plant, Argyroxiphium sandwicense. Oecologia, 1994, 98, 412-418.	0.9	25
66	Effective slope lengths for buffering hillslope surface runoff in fragmented landscapes in northern Vietnam. Forest Ecology and Management, 2006, 224, 104-118.	1.4	25
67	The influence of ENSO, PDO and PNA on secular rainfall variations in Hawaiâ€˜i. Climate Dynamics, 2018, 51, 2127-2140.	1.7	25
68	Soil translocation by weeding on steep-slope swidden fields in northern Vietnam. Soil and Tillage Research, 2007, 96, 219-233.	2.6	24
69	Bringing multiple values to the table: assessing future land-use and climate change in North Kona, Hawaiʻi. Ecology and Society, 2018, 23, .	1.0	24
70	Change in trade wind inversion frequency implicated in the decline of an alpine plant. Climate Change Responses, 2016, 3, .	2.6	22
71	Estimating Cost-Effectiveness of Hawaiian Dry Forest Restoration Using Spatial Changes in Water Yield and Landscape Flammability Under Climate Change. Pacific Science, 2017, 71, 401-424.	0.2	22
72	Restoring to the future: Environmental, cultural, and management tradeâ€offs in historical versus hybrid restoration of a highly modified ecosystem. Conservation Letters, 2019, 12, e12606.	2.8	22

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73	High-Resolution Gridded Daily Rainfall and Temperature for the Hawaiian Islands (1990â€“2014). Journal of Hydrometeorology, 2019, 20, 489-508.	0.7	21
74	Use of Daily Station Observations to Produce High-Resolution Gridded Probabilistic Precipitation and Temperature Time Series for the Hawaiian Islands. Journal of Hydrometeorology, 2019, 20, 509-529.	0.7	21
75	Tree Canopies Reflect Mycorrhizal Composition. Geophysical Research Letters, 2021, 48, e2021GL092764.	1.5	21
76	Characterizing the Uncertainty and Assessing the Value of Gap-Filled Daily Rainfall Data in Hawaii. Journal of Applied Meteorology and Climatology, 2020, 59, 1261-1276.	0.6	21
77	Soil-vegetation-atmosphere processes: Simulation and field measurement for deforested sites in northern Thailand. Journal of Geophysical Research, 1996, 101, 25867-25885.	3.3	20
78	A Five-Century Reconstruction of Hawaiian Islands Winter Rainfall. Journal of Climate, 2016, 29, 5661-5674.	1.2	20
79	Methodological Intercomparisons of Station-Based Gridded Meteorological Products: Utility, Limitations, and Paths Forward. Journal of Hydrometeorology, 2019, 20, 531-547.	0.7	20
80	Spatial Patterns and Trends in Surface Air Temperatures and Implied Changes in Atmospheric Moisture Across the Hawaiian Islands, 1905â€“2017. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031571.	1.2	20
81	Water relations and microclimate around the upper limit of a cloud forest in Maui, Hawai'i. Tree Physiology, 2014, 34, 766-777.	1.4	19
82	Will climate change shift the lower ecotone of tropical montane cloud forests upwards on islands?. Journal of Biogeography, 2018, 45, 1326-1333.	1.4	19
83	Improved method for modelling sediment transport on unpaved roads using KINEROS2 and dynamic erodibility. Hydrological Processes, 2002, 16, 3079-3089.	1.1	18
84	Evaporation at high elevations in Hawaii. Journal of Hydrology, 1992, 136, 219-235.	2.3	17
85	Optimizing Automated Kriging to Improve Spatial Interpolation of Monthly Rainfall over Complex Terrain. Journal of Hydrometeorology, 2022, 23, 561-572.	0.7	17
86	Hydrology and Biogeochemistry of Tropical Montane Cloud Forests. Ecological Studies, 2011, , 221-259.	0.4	16
87	Temporal solar radiation change at high elevations in Hawaiâ€˜i. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6022-6033.	1.2	16
88	Differences in seasonality and temperature dependency of stand transpiration and canopy conductance between Japanese cypress (Hinoki) and Japanese cedar (Sugi) in a plantation. Hydrological Processes, 2017, 31, 1952-1965.	1.1	16
89	Modeled Effects of Climate Change and Plant Invasion on Watershed Function Across a Steep Tropical Rainfall Gradient. Ecosystems, 2017, 20, 583-600.	1.6	16
90	GROUNDWATER CONTAMINATION BY NEMATICIDES: INFLUENCE OF RECHARGE TIMING UNDER PINEAPPLE CROP. Journal of the American Water Resources Association, 1989, 25, 285-294.	1.0	15

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91	Linking water-balance simulation and multiobjective programming: land-use plan design in Hawaii. Environment and Planning B: Planning and Design, 1992, 19, 317-336.	1.7	15
92	Hydro-climatic effects of future land-cover/land-use change in montane mainland southeast Asia. Climatic Change, 2013, 118, 213-226.	1.7	15
93	On the relation between largeâ€scale circulation pattern and heavy rain events over the Hawaiian Islands: Recent trends and future changes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4129-4141.	1.2	15
94	How will rainfall change over Hawaiâ€˜i in the future? High-resolution regional climate simulation of the Hawaiian Islands. Bulletin of Atmospheric Science and Technology, 2020, 1, 459-490.	0.4	15
95	Reassessment of Revegetation Strategies for Kaho'olawe Island, Hawai'i. Journal of Range Management, 2000, 53, 106.	0.3	14
96	Simulation of canopy CO2/H2O fluxes for a rubber (Hevea brasiliensis) plantation in central Cambodia: The effect of the regular spacing of planted trees. Ecological Modelling, 2013, 265, 124-135.	1.2	14
97	Temperature trends in HawaiÊ»i: A century of change, 1917â€“2016. International Journal of Climatology, 2019, 39, 3987-4001.	1.5	14
98	Winter evaporation on a mountain slope, Hawaii. Journal of Hydrology, 1990, 112, 257-265.	2.3	13
99	Chemical Leaching Near the Waiawa Shaft, Oahu, Hawaii: 2. Modeling Results. Ground Water, 1995, 33, 124-138.	0.7	13
100	Spatial patterns of seasonal crop production suggest coordination within and across dryland agricultural systems of Hawaiʻi Island. Ecology and Society, 2018, 23, .	1.0	13
101	Scaling of Frond Form in Hawaiian Tree Fern Cibotium glaucum: Compliance with Global Trends and Application for Field Estimation. Biotropica, 2008, 40, 686-691.	0.8	12
102	Water Balance, Climate Change and Land-use Planning in the Pearl Harbor Basin, Hawai'i. International Journal of Water Resources Development, 1996, 12, 515-530.	1.2	11
103	Fire and Rain: The Legacy of Hurricane Lane in HawaiÊ»i. Bulletin of the American Meteorological Society, 2020, 101, E954-E967.	1.7	11
104	Vulnerability of Island Tropical Montane Cloud Forests to Climate Change, with Special Reference to East Maui, Hawaii. , 1998, , 363-377.		10
105	Use of a clear-day solar radiation model to homogenize solar radiation measurements in Hawaiâ€˜i. Solar Energy, 2013, 91, 102-110.	2.9	9
106	Nonâ€native tree in a dry coastal area in Hawai'i has high transpiration but restricts water use despite phreatophytic trait. Ecohydrology, 2016, 9, 1166-1176.	1.1	9
107	An Assessment of Diurnal and Seasonal Cloud Cover Changes over the Hawaiian Islands Using Terra and Aqua MODIS*. Journal of Climate, 2016, 29, 77-90.	1.2	9
108	Modeling clearâ€sky solar radiation across a range of elevations in Hawaiâ€˜i: Comparing the use of input parameters at different temporal resolutions. Journal of Geophysical Research, 2012, 117, .	3.3	8

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109	Mora et al. reply. Nature, 2014, 511, E5-E6.	13.7	8
110	Risk analysis of seasonal agricultural drought on low pacific islands. Agricultural and Forest Meteorology, 1988, 42, 229-239.	1.9	7
111	Drought, groundwater management and land use planning: the case of central Oahu, Hawaii. Applied Geography, 1991, 11, 289-307.	1.7	7
112	Chemical Leaching Near the Waiawa Shaft, Oahu, Hawaii: 1. Field Experiments and Laboratory Analysis. Ground Water, 1994, 32, 986-996.	0.7	7
113	AGRICULTURAL DROUGHT ON SOUTH-CENTRAL PACIFIC ISLANDS â^—. Professional Geographer, 1988, 40, 404-415.	1.0	6
114	An automated recording atmometer: 2. evaporation measurement on a high elevation transect in Hawaii. Agricultural and Forest Meteorology, 1992, 62, 127-138.	1.9	5
115	Linking Household and Remotely Sensed Data for Understanding Forest Fragmentation in Northern Vietnam. , 2004, , 201-221.		4
116	Hydrological effects of tree invasion on a dry coastal Hawaiian ecosystem. Forest Ecology and Management, 2020, 458, 117653.	1.4	4
117	Distinguishing Variability Regimes of Hawaiian Summer Rainfall: Quasiâ€Biennial and Interdecadal Oscillations. Geophysical Research Letters, 2020, 47, e2020GL091260.	1.5	4
118	The Hawaiâ€˜i Rainfall Analysis and Mapping Application (HI-RAMA): Decision Support and Data Visualization for Statewide Rainfall Data. , 2020, , .		4
119	Building a portal for climate dataâ€”Mapping automation, visualization, and dissemination. Concurrency Computation Practice and Experience, 2023, 35, .	1.4	4
120	Climate change impacts shifting landscape of the dairy industry in Hawaiâ€˜i. Translational Animal Science, 2022, 6, .	0.4	4
121	Hourly rainfall data from rain gauge networks and weather radar up to 2020 across the Hawaiian Islands. Scientific Data, 2022, 9, .	2.4	4
122	RADIATION CLIMATOLOGY THROUGH THE TRADE-WIND INVERSION ON THE LEE SLOPE OF HALEAKALA, MAUI, HAWAII. Physical Geography, 1992, 13, 66-80.	0.6	2
123	An automated recording atmometer: I. calibration and testing. Agricultural and Forest Meteorology, 1992, 62, 109-125.	1.9	2
124	Transpiration of trees in a cool temperate forest on Mt. Aso, Japan: comparison of model simulation and measurements. Ecological Research, 2017, 32, 547-557.	0.7	2
125	Dynamical Downscaling of Nearâ€Term (2026â€“2035) Climate Variability and Change for the Main Hawaiian Islands. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	2
126	Stochastic daily rainfall generation on tropical islands with complex topography. Hydrology and Earth System Sciences, 2022, 26, 2113-2129.	1.9	2

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127	Leaf and Soil-plant Hydraulic Processes in the Transpiration of Tropical Forest. Procedia Environmental Sciences, 2013, 19, 77-85.	1.3	1
128	Erratum to "Impact of uncertainty in soil, climatic, and chemical information in a pesticide leaching assessment". Journal of Contaminant Hydrology, 2016, 194, 59-72.	1.6	1
129	Multi-Stemmed Habit in Trees Contributes Climate Resilience in Tropical Dry Forest. Sustainability, 2022, 14, 6779.	1.6	1
130	Hawaiâ€˜i and U.S. Affiliated Pacific Islands. Climate Change Impacts in the United States: The Third National Climate Assessment. SSRN Electronic Journal, 0, , .	0.4	0