Richard M Lucas

List of Publications by Year
in descending order

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Version: 2024-02-01

147 papers	9,585 citations	38660 50 h-index	39575 94 g-index

152 all docs	152 docs citations	152 times ranked	10835 citing authors

#	Article	IF	Citations
1	Aboveground biomass density models for NASAâ€™s Global Ecosystem Dynamics Investigation (GEDI) lidar mission. Remote Sensing of Environment, 2022, 270, 112845.	4.6	108
2	A comprehensive framework for assessing the accuracy and uncertainty of global above-ground biomass maps. Remote Sensing of Environment, 2022, 272, 112917.	4.6	48
3	Monitoring Plant Diversity to Support Agri-Environmental Schemes: Evaluating Statistical Models Informed by Satellite and Local Factors in Southern European Mountain Pastoral Systems. Diversity, 2022, 14, 8.	0.7	1
4	Global Mangrove Watch: Updated 2010 Mangrove Forest Extent (v2.5). Remote Sensing, 2022, 14, 1034.	1.8	35
5	High-resolution mapping of losses and gains of Earthâ€™s tidal wetlands. Science, 2022, 376, 744-749.	6.0	138
6	Can Mangrove Silviculture Be Carbon Neutral?. Remote Sensing, 2022, 14, 2920.	1.8	4
7	Monitoring Matang's Mangroves in Peninsular Malaysia through Earth observations: A globally relevant approach. Land Degradation and Development, 2021, 32, 354-373.	1.8	15
8	An accuracy analysis of mangrove tree height mensuration using forestry techniques, hypsometers and UAVs. Estuarine, Coastal and Shelf Science, 2021, 248, 106971.	0.9	15
9	Variations of carbon allocation and turnover time across tropical forests. Global Ecology and Biogeography, 2021, 30, 1271-1285.	2.7	12
10	Living Earth: Implementing national standardised land cover classification systems for Earth Observation in support of sustainable development. Big Earth Data, 2021, 5, 368-390.	2.0	11
11	Progress in Grassland Cover Conservation in Southern European Mountains by 2020: A Transboundary Assessment in the Iberian Peninsula with Satellite Observations (2002â€“2019). Remote Sensing, 2021, 13, 3019.	1.8	4
12	National scale mapping of larch plantations for Wales using the Sentinel-2 data archive. Forest Ecology and Management, 2021, 501, 119679.	1.4	5
13	Exploring the Relationship between Forest Canopy Height and Canopy Density from Spaceborne LiDAR Observations. Remote Sensing, 2021, 13, 4961.	1.8	3
14	Mapping the multi-decadal mangrove dynamics of the Australian coastline. Remote Sensing of Environment, 2020, 238, 111185.	4.6	66
15	Structural characterisation of mangrove forests achieved through combining multiple sources of remote sensing data. Remote Sensing of Environment, 2020, 237, 111543.	4.6	57
16	A global biophysical typology of mangroves and its relevance for ecosystem structure and deforestation. Scientific Reports, 2020, 10, 14652.	1.6	94
17	Spatial analysis of early mangrove regeneration in the Matang Mangrove Forest Reserve, Peninsular Malaysia, using geomatics. Forest Ecology and Management, 2020, 472, 118213.	1.4	7
18	Knowledge-Based Classification of Grassland Ecosystem Based on Multi-Temporal WorldView-2 Data and FAO-LCCS Taxonomy. Remote Sensing, 2020, 12, 1447.	1.8	23

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19	Digital Earth for Sustainable Development Goals. , 2020, , 443-471.		9
20	Living Wales â€“ automatic and routine environmental monitoring using multi-source Earth observation data. , 2020, , .		4
21	The State of the World's Mangrove Forests: Past, Present, and Future. Annual Review of Environment and Resources, 2019, 44, 89-115.	5.6	386
22	The Forest Observation System, building a global reference dataset for remote sensing of forest biomass. Scientific Data, 2019, 6, 198.	2.4	44
23	Ailanthus altissima mapping from multi-temporal very high resolution satellite images. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 147, 90-103.	4.9	33
24	A Structural Classification of Australian Vegetation Using ICESat/GLAS, ALOS PALSAR, and Landsat Sensor Data. Remote Sensing, 2019, 11, 147.	1.8	30
25	Sea surface wind retrieval in coastal areas by means of Sentinel-1 and numerical weather prediction model data. Remote Sensing of Environment, 2019, 225, 379-391.	4.6	17
26	An Analysis of the Early Regeneration of Mangrove Forests using Landsat Time Series in the Matang Mangrove Forest Reserve, Peninsular Malaysia. Remote Sensing, 2019, 11, 774.	1.8	38
27	The Role and Need for Space-Based Forest Biomass-Related Measurements in Environmental Management and Policy. Surveys in Geophysics, 2019, 40, 757-778.	2.1	92
28	Land Cover Mapping using Digital Earth Australia. Data, 2019, 4, 143.	1.2	23
29	A revised above-ground maximum biomass layer for the Australian continent. Forest Ecology and Management, 2019, 432, 264-275.	1.4	19
30	Managing mangrove forests from the sky: Forest inventory using field data and Unmanned Aerial Vehicle (UAV) imagery in the Matang Mangrove Forest Reserve, peninsular Malaysia. Forest Ecology and Management, 2018, 411, 35-45.	1.4	121
31	Detection of Forest Disturbance With Spaceborne Repeat-Pass SAR Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 2424-2439.	2.7	14
32	The role of satellite remote sensing in structured ecosystem risk assessments. Science of the Total Environment, 2018, 619-620, 249-257.	3.9	93
33	Satellite remote sensing of ecosystem functions: opportunities, challenges and way forward. Remote Sensing in Ecology and Conservation, 2018, 4, 71-93.	2.2	176
34	Change Detection in (Semi-) Natural Grassland Ecosystems for Biodiversity Monitoring Using Open Data. , 2018, , .		2
35	Living WALES â€" National Level Mapping and Monitoring Though Earth Observations, Ground Data and Models. , 2018, , .		0
36	Mapping Mangrove Extent and Change: A Globally Applicable Approach. Remote Sensing, 2018, 10, 1466.	1.8	70

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37	The extent of mangrove change and potential for recovery following severe Tropical Cyclone Yasi, Hinchinbrook Island, Queensland, Australia. Ecology and Evolution, 2018, 8, 10416-10434.	0.8	45
38	The Global Mangrove Watchâ€"A New 2010 Global Baseline of Mangrove Extent. Remote Sensing, 2018, 10, 1669.	1.8	414
39	Remote Sensing of Wetland Types: Mangroves. , 2018, , 1641-1647.		0
40	Historical perspectives on the mangroves of Kakadu National Park. Marine and Freshwater Research, 2018, 69, 1047.	0.7	26
41	<scp>Remap</scp>: An online remote sensing application for land cover classification and monitoring. Methods in Ecology and Evolution, 2018, 9, 2019-2027.	2.2	33
42	On the Use of Unmanned Aerial Systems for Environmental Monitoring. Remote Sensing, 2018, 10, 641.	1.8	433
43	Earth Observation Methods for Wetlands: Overview. , 2018, , 1585-1593.		1
44	Electromagnetic Spectrum: Regions Relevant to Wetlands. , 2018, , 1595-1601.		1
45	Remote Sensing Instruments: Sensor Types Relevant to Wetlands. , 2018, , 1603-1607.		2
46	Remote Sensing of Wetland Types: Semiarid Wetlands of Southern Hemisphere. , 2018, , 1665-1671.		0
47	Remote Sensing of Wetland Types: Temperate Bogs, Mires, and Fens. , 2018, , 1679-1683.		0
48	Remote Sensing of Water in Wetlands: Inundation Patterns and Extent. , 2018, , 1609-1617.		0
49	Remote Sensing of Wetland Types: Sea Grasses. , 2018, , 1659-1663.		0
50	Mapping major land cover types and retrieving the age of secondary forests in the Brazilian Amazon by combining single-date optical and radar remote sensing data. Remote Sensing of Environment, 2017, 194, 16-32.	4.6	44
51	Introducing the Book â€œThe Roles of Remote Sensing in Nature Conservationâ€• , 2017, , 3-10.		5
52	Integrated Land Cover and Change Classifications. , 2017, , 295-308.		14
53	Expected Advances in a Rapidly Developing Work Area. , 2017, , 309-318.		0
54	Spatial Ecology of Mangrove Forests: A Remote Sensing Perspective. , 2017, , 87-112.		6

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55	Variations in mangrove regeneration rates under different management plans: An analysis of Landsat time-series in the Matang Mangrove Forest Reserve, Peninsular Malaysia. , 2017, , .		2
56	Estimating Invasion Success by Non-Native Trees in a National Park Combining WorldView-2 Very High Resolution Satellite Data and Species Distribution Models. Diversity, 2017, 9, 6.	0.7	12
57	LARGE-scale fine-resolution products of forest disturbance using new approaches from spacborne sar interferometry. , 2017, , .		0
58	Distribution and drivers of global mangrove forest change, 1996â€“2010. PLoS ONE, 2017, 12, e0179302.	1.1	380
59	Remote Sensing Measures Restoration Successes, but Canopy Heights Lag in Restoring Floodplain Vegetation. Remote Sensing, 2016, 8, 542.	1.8	11
60	Towards Operational Detection of Forest Ecosystem Changes in Protected Areas. Remote Sensing, 2016, 8, 850.	1.8	0
61	An integrated panâ€tropical biomass map using multiple reference datasets. Global Change Biology, 2016, 22, 1406-1420.	4.2	469
62	Framing the concept of satellite remote sensing essential biodiversity variables: challenges and future directions. Remote Sensing in Ecology and Conservation, 2016, 2, 122-131.	2.2	243
63	Mangrove Response to Environmental Change in Kakadu National Park. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 5612-5620.	2.3	13
64	Mangrove response to environmental change in Australia's Gulf of Carpentaria. Ecology and Evolution, 2016, 6, 3523-3539.	0.8	69
65	Combining satellite data for better tropical forest monitoring. Nature Climate Change, 2016, 6, 120-122.	8.1	112
66	Detection of changes in semi-natural grasslands by cross correlation analysis with WorldView-2 images and new Landsat 8 data. Remote Sensing of Environment, 2016, 175, 65-72.	4.6	44
67	Remote Sensing of Water in Wetlands: Inundation Patterns and Extent. , 2016, , 1-9.		1
68	Earth Observation Methods for Wetlands: Overview. , 2016, , 1-9.		0
69	Remote Sensing of Wetland Types: Mangroves. , 2016, , 1-6.		0
70	Environmental science: Agree on biodiversity metrics to track from space. Nature, 2015, 523, 403-405.	13.7	329
71	Contribution of ALOS PALSAR data to forest characterization and monitoring in Australia. , 2015, , .		0
72	An approach to monitoring mangrove extents through time-series comparison of JERS-1 SAR and ALOS PALSAR data. Wetlands Ecology and Management, 2015, 23, 3-17.	0.7	19

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73	The Earth Observation Data for Habitat Monitoring (EODHaM) system. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 17-28.	1.4	60
74	Can we predict habitat quality from space? A multi-indicator assessment based on an automated knowledge-driven system. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 106-113.	1.4	19
75	Satellite Earth observation data to identify anthropogenic pressures in selected protected areas. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 124-132.	1.4	41
76	Synergy of airborne LiDAR and Worldview-2 satellite imagery for land cover and habitat mapping: A BIO_SOS-EODHaM case study for the Netherlands. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 48-55.	1.4	13
77	Hyperspectral remote sensing of peatland floristic gradients. Remote Sensing of Environment, 2015, 162, 99-111.	4.6	50
78	Mangrove Response to Environmental Changes Predicted Under Varying Climates: Case Studies from Australia. Current Forestry Reports, 2015, 1, 178-194.	3.4	40
79	Measurement of Forest Above-Ground Biomass Using Active and Passive Remote Sensing at Large (Subnational to Global) Scales. Current Forestry Reports, 2015, 1, 162-177.	3.4	34
80	Challenges and opportunities in harnessing satellite remote-sensing for biodiversity monitoring. Ecological Informatics, 2015, 30, 207-214.	2.3	33
81	Multi-resolution time series imagery for forest disturbance and regrowth monitoring in Queensland, Australia. Remote Sensing of Environment, 2015, 158, 156-168.	4.6	89
82	Very high resolution Earth observation features for monitoring plant and animal community structure across multiple spatial scales in protected areas. International Journal of Applied Earth Observation and Geoinformation, 2015, 37, 100-105.	1.4	29
83	Land Use and Land Cover Change Dynamics across the Brazilian Amazon: Insights from Extensive Time-Series Analysis of Remote Sensing Data. PLoS ONE, 2014, 9, e104144.	1.1	45
84	A Python-Based Open Source System for Geographic Object-Based Image Analysis (GEOBIA) Utilizing Raster Attribute Tables. Remote Sensing, 2014, 6, 6111-6135.	1.8	59
85	Contribution of L-band SAR to systematic global mangrove monitoring. Marine and Freshwater Research, 2014, 65, 589.	0.7	52
86	Harmonization of the Land Cover Classification System (LCCS) with the General Habitat Categories (GHC) classification system. Ecological Indicators, 2014, 36, 290-300.	2.6	39
87	New global forest/non-forest maps from ALOS PALSAR data (2007â€“2010). Remote Sensing of Environment, 2014, 155, 13-31.	4.6	463
88	The Remote Sensing and GIS Software Library (RSGISLib). Computers and Geosciences, 2014, 62, 216-226.	2.0	84
89	Expert knowledge for translating land cover/use maps to General Habitat Categories (GHC). Landscape Ecology, 2014, 29, 1045-1067.	1.9	33
90	Mapping forest growth and degradation stage in the Brigalow Belt Bioregion of Australia through integration of ALOS PALSAR and Landsat-derived foliage projective cover data. Remote Sensing of Environment, 2014, 155, 42-57.	4.6	27

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91	An assessment of TanDEM-X GlobalDEM over rural and urban areas. Proceedings of SPIE, 2014, , .	0.8	1
92	Translating land cover/land use classifications to habitat taxonomies for landscape monitoring: a Mediterranean assessment. Landscape Ecology, 2013, 28, 905-930.	1.9	64
93	Mapping changes in the largest continuous Amazonian mangrove belt using object-based classification of multisensor satellite imagery. Estuarine, Coastal and Shelf Science, 2013, 117, 83-93.	0.9	130
94	Application of multi-resolution remotely sensed imagery for the monitoring of land cover change. , 2013, , .		0
95	Sorted pulse data (SPD) libraryâ€"Part II: A processing framework for LiDAR data from pulsed laser systems in terrestrial environments. Computers and Geosciences, 2013, 56, 207-215.	2.0	33
96	Sorted pulse data (SPD) library. Part I: A generic file format for LiDAR data from pulsed laser systems in terrestrial environments. Computers and Geosciences, 2013, 56, 197-206.	2.0	44
97	Classification of forest composition using polarimetric decomposition in multiple landscapes. Remote Sensing of Environment, 2013, 131, 206-214.	4.6	28
98	Remote sensing for conservation monitoring: Assessing protected areas, habitat extent, habitat condition, species diversity, and threats. Ecological Indicators, 2013, 33, 45-59.	2.6	445
99	Direct retrieval of canopy gap probability using airborne waveform lidar. Remote Sensing of Environment, 2013, 134, 24-38.	4.6	102
100	Using landscape history to predict biodiversity patterns in fragmented landscapes. Ecology Letters, 2013, 16, 1221-1233.	3.0	65
101	Analysis of TanDEM-X InSAR data aimed at the characterisation of vegetation vertical structure: A case study in injune (Queensland, Australia). , 2013, , .		0
102	Land cover to habitat map translation: Disambiguation rules based on Earth Observation data. , 2013, , .		3
103	Observation of vegetation vertical structure and disturbance using L-band InSAR over the Injune region in Australia. , 2012, , .		3
104	Analysis and error assessment on the use of segmentation for estimating forest structural characteristics from lidar and radar. , 2012, , .		0
105	Understanding the relationship between aboveground biomass and ALOS PALSAR data in the forests of Guinea-Bissau (West Africa). Remote Sensing of Environment, 2012, 121, 426-442.	4.6	125
106	An Approach to Mapping Forest Growth Stages in Queensland, Australia through Integration of ALOS PALSAR and Landsat Sensor Data. Remote Sensing, 2012, 4, 2236-2255.	1.8	18
107	A Generalized Radar Backscattering Model Based on Wave Theory for Multilayer Multispecies Vegetation. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4832-4845.	2.7	58
108	The K&C PALSAR Mosaic of the African Continent: Processing Issues and First Thematic Results. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 3593-3610.	2.7	23

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109	Updating the Phase 1 habitat map of Wales, UK, using satellite sensor data. ISPRS Journal of Photogrammetry and Remote Sensing, 2011, 66, 81-102.	4.9	75
110	The Kyoto & Carbon Initiative â€" A Brief Summary. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 551-553.	2.3	10
111	Characterisation and mapping of forest communities by clustering individual tree crowns. Remote Sensing of Environment, 2010, 114, 2536-2547.	4.6	29
112	A multi-resolution area-based technique for automatic multi-modal image registration. Image and Vision Computing, 2010, 28, 1203-1219.	2.7	34
113	Managing uncertainty when aggregating from pixels to objects: habitats, context-sensitive mapping and possibility theory. International Journal of Remote Sensing, 2010, 31, 1061-1068.	1.3	4
114	An Evaluation of the ALOS PALSAR L-Band Backscatterâ€"Above Ground Biomass Relationship Queensland, Australia: Impacts of Surface Moisture Condition and Vegetation Structure. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 576-593.	2.3	216
115	Title is missing!. Forest Ecology and Management, 2010, 259, 1213-1214.	1.4	0
116	Implications of land-use history for forest regeneration in the Brazilian Amazon. Canadian Journal of Remote Sensing, 2009, 35, 534-553.	1.1	23
117	Analysis by Wavelet Frames of Spatial Statistics in SAR Data for Characterizing Structural Properties of Forests. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 494-507.	2.7	28
118	Combining Texture and Hyperspectral Information for the Classification of Tree Species in Australian Savanna Woodlands. Lecture Notes in Geoinformation and Cartography, 2009, , 19-26.	0.5	5
119	Classification of Australian forest communities using aerial photography, CASI and HyMap data. Remote Sensing of Environment, 2008, 112, 2088-2103.	4.6	85
120	Retrieving forest biomass through integration of CASI and LiDAR data. International Journal of Remote Sensing, 2008, 29, 1553-1577.	1.3	73
121	An Area based Technique for Image-to-Image Registration of Multi-Modal Remote Sensing Data. , 2008, , .		7
122	Changing snow cover and the net mass balance of StorglaciÃren, northern Sweden. Annals of Glaciology, 2008, 49, 199-204.	2.8	5
123	Assessing Human Impacts on Australian Forests through Integration of Remote Sensing Data. , 2008, , 213-239.		6
124	Hyperspectral Data for Assessing Carbon Dynamics and Biodiversity of Forests. , 2008, , 47-86.		5
125	Early recognition of glacial lake hazards in the Himalaya using remote sensing datasets. Global and Planetary Change, 2007, 56, 137-152.	1.6	252
126	A new map of mangroves for Kakadu National Park, Northern Australia, based on stereo aerial photography. Aquatic Conservation: Marine and Freshwater Ecosystems, 2007, 17, 446-467.	0.9	19

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127	The potential of L-band SAR for quantifying mangrove characteristics and change: case studies from the tropics. Aquatic Conservation: Marine and Freshwater Ecosystems, 2007, 17, 245-264.	0.9	127
128	Rule-based classification of multi-temporal satellite imagery for habitat and agricultural land cover mapping. ISPRS Journal of Photogrammetry and Remote Sensing, 2007, 62, 165-185.	4.9	170
129	A LiDAR-derived canopy density model for tree stem and crown mapping in Australian forests. Remote Sensing of Environment, 2007, 111, 493-518.	4.6	119
130	Enhanced Simulation of Radar Backscatter From Forests Using LiDAR and Optical Data. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2736-2754.	2.7	29
131	Quantifying Australian forest floristics and structure using small footprint LiDAR and large scale aerial photography. Forest Ecology and Management, 2006, 223, 379-394.	1.4	59
132	Integration of radar and Landsat-derived foliage projected cover for woody regrowth mapping, Queensland, Australia. Remote Sensing of Environment, 2006, 100, 388-406.	4.6	63
133	Empirical relationships between AIRSAR backscatter and LiDAR-derived forest biomass, Queensland, Australia. Remote Sensing of Environment, 2006, 100, 407-425.	4.6	122
134	The delineation of tree crowns in Australian mixed species forests using hyperspectral Compact Airborne Spectrographic Imager (CASI) data. Remote Sensing of Environment, 2006, 101, 230-248.	4.6	168
135	Area and Age of Secondary Forests in Brazilian Amazonia 1978â€“2002: An Empirical Estimate. Ecosystems, 2006, 9, 609-623.	1.6	79
136	Radar backscattering model for multilayer mixed-species forests. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 2612-2626.	2.7	44
137	Optical remote sensing techniques in high-mountain environments: application to glacial hazards. Progress in Physical Geography, 2005, 29, 475-505.	1.4	92
138	Microwave scattering from mixed-species forests, Queensland, Australia. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 2142-2159.	2.7	71
139	A review of remote sensing technology in support of the Kyoto Protocol. Environmental Science and Policy, 2003, 6, 441-455.	2.4	207
140	Evaluating TERRA-1 MODIS data for discrimination of tropical secondary forest regeneration stages in the Brazilian Legal Amazon. Geophysical Research Letters, 2002, 29, 42-1-42-4.	1.5	18
141	The potential of synthetic aperture radar (SAR) for quantifying the biomass of Australia's woodlands.. Rangeland Journal, 2000, 22, 124.	0.4	35
142	Tropical Forest Biomass Density Estimation Using JERS-1 SAR: Seasonal Variation, Confidence Limits, and Application to Image Mosaics. Remote Sensing of Environment, 1998, 63, 126-139.	4.6	144
143	Mapping tropical forest fractional cover from coarse spatial resolution remote sensing imagery. Plant Ecology, 1997, 131, 143-154.	0.7	38
144	Identifying terrestrial carbon sinks: Classification of successional stages in regenerating tropical forest from Landsat TM data. Remote Sensing of Environment, 1996, 55, 205-216.	4.6	167

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145	Estimation of the Areal Extent of Land Cover Classes that Only Occur at a Sub-Pixel Level. Canadian Journal of Remote Sensing, 1996, 22, 428-432.	1.1	21
146	Outâ€ofâ€Plane Buckling of Restrained Thin Rings of General Open Section. Journal of Engineering Mechanics - ASCE, 1994, 120, 929-948.	1.6	7
147	Multi-spectral classification of snow using NOAA AVHRR imagery. International Journal of Remote Sensing, 1989, 10, 907-916.	1.3	30