

**JOHN H. LOWRY JR**  
**April 2024**

Geography and Geospatial Science  
College of Earth, Oceans and Atmospheric Sciences  
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## PROFILE

I am a geographer with a broad background in geospatial science applications addressing human-environment interactions. In the last few years my research has focused on geospatial science pedagogy in tertiary education. My research in geospatial science has addressed theoretical questions and applied objectives in urban ecology, environmental planning and management, conservation biology, public health, disaster management, and geolinguistics. Methodological approaches in geospatial science include the use of spatial statistics, multivariate statistics, multi-criteria decision analysis, and Participatory GIS.

## PROFESSIONAL EXPERIENCE

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| 2024 – Present | <b>Senior Instructor I</b> , Geography and Geospatial Science, College of Earth, Ocean and Atmospheric Sciences, Oregon State University, Corvallis, Oregon. |
| 2017 – 2024    | <b>Senior Lecturer</b> , School of People, Environment and Planning. Massey University, Palmerston North, New Zealand.                                       |
| 2013 - 2017    | <b>Deputy Head of School</b> , School of Geography, Earth Science & Environment, The University of the South Pacific, Suva, Fiji Islands                     |
| 2010 - 2017    | <b>Senior Lecturer</b> , School of Geography, Earth Science & Environment, The University of the South Pacific, Suva, Fiji Islands                           |
| 1999 - 2010    | <b>Associate Director</b> , Remote Sensing/GIS Laboratory, College of Natural Resources, Utah State University, Logan, Utah, USA.                            |
| 1994 - 1999    | <b>GIS Specialist</b> , GEO/Graphics, Inc., Logan, Utah, USA.  |
| 1992 - 1993    | <b>Cartographic Technician</b> , U.S. Bureau of Land Management.   |

## EDUCATION

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| 2016 | <b>Postgraduate Certificate in Tertiary Teaching</b> , The University of the South Pacific.  |
| 2010 | <b>PhD Environment &amp; Society</b> , Utah State University. Dissertation: <i>Spatial Analysis of Urbanization in the Salt Lake Valley: An Urban Ecosystem Perspective.</i> |
| 1994 | <b>MSc Geography</b> , The University of Utah. Thesis: <i>An Assessment of Community Vulnerability to Hazardous Contaminants at the US-Mexico Border using a GIS.</i>        |
| 1989 | <b>BA International Relations with minor in Spanish</b> , Brigham Young University.  |

### Teaching Award:

2022 *Award for Innovation and Excellence.* College of Humanities and Social Sciences, Massey University

## TEACHING at OREGON STATE UNIVERSITY

- *Quantitative Geospatial Analysis and Modelling (eCampus Geog 361: Spring 2024)*
- *GIScience II: Analysis and Applications (Geog 561: Spring 2024)*

### TEACHING at MASSEY UNIVERSITY

- *Working with Geographic Data* (145.202: 2018-2024) [Mode: F2F, Blended, Distance]
- *Cartography and Data Visualisation* (145.300: 2022-2024) [Mode: Blended, Distance]
- *GIS Principles and Applications* (145.739: 2018-2024) [Mode: Distance]
- *GIS Programming and Practice* (145.740: 2017-2024) [Mode: Distance]
- *Interpretation in Geospatial Analytics* (230.705: 2017-2020) [Mode: Blended]

### TEACHING at MASSEY UNIVERSITY (Course contributor)

- *Society, Environment and Place* (145.111: 2017-2024) [Mode: F2F, Blended, Distance]
- *Introduction to Planning Analytics* (132.102: 2018-2021) [Mode: F2F, Blended, Distance]

### TEACHING at THE UNIVERSITY OF THE SOUTH PACIFIC

- *Remote Sensing I* (GS211: 2010-2015) [Mode: F2F]
- *Quantitative Methods* (GS200: 2016-2017) [Mode: F2F]
- *Cartography and Geovisualization* (GS231: 2016) [Mode: F2F]
- *Geographic Information Systems II* (GS301: 2011-2016) [Mode: F2F]
- *Geographic Information Systems I* (GS201: 2014) [Mode: F2F]
- *Research Methods in Geography* (GE403: 2014, 2015) [Mode: F2F]
- *Resource Conservation and Management* (GE304: 2013) [Mode: F2F]
- *Projects in Geospatial Science* (GS350: 2011-2013) [Mode: F2F]

### TEACHING at UTAH STATE UNIVERSITY

- *Introduction to Geographic Information Science* (WATS/GEOG 2930: 2009) [Mode: F2F]
- *Geographic Information Systems* (WATS 4930/6920: 2008) [Mode: F2F]
- *GIS Programming with Python* (WILD 6900: 2008-2010) [Mode: F2F]
- *Geographic Information Systems* (WATS 4930/6920: 2007-2009) [Mode: Distance]
- *Geographic Information Analysis* (WATS 5930/6930: 2008-2010) [Mode: Distance]
- *Introduction to GIS fundamentals* (GEOG 593/693: 1997) [Mode: F2F]
- *Geographic Information Analysis* (GEOG 594/694: 1997) [Mode: F2F]

### ACCADEMIC ADVISING

#### **Former Students at Massey University**

- Ranabahu, Shashini (2020-2024) *Transportation and climate change: A system-based approach to assess vulnerability and resilience*. **PhD Geography** (Principal Supervisor).
- Tran, Duy Xuan (2020-2023) *Applying a landscape ecological approach and geodesign to inform the creation of future multi-functional, sustainable agricultural landscapes*. **PhD Natural Resources Management** (Co-supervisor with Professor Diane Pearson).

#### **Former Students (as Principal Supervisor—University of the South Pacific):**

- Wotlolan, Dean (2019) *Decision support for agroforestry interventions in the Sigatoka Valley, Fiji using GIS-MCDA*. **MA Environmental Management**.
- Etches, Manarii (2017) *Challenges of developing and sustaining geographical information systems in the Cook Islands*. **MSc Information Systems**.
- Titoko, Richard (2017) *Abundance, distribution, and status of native birds in the Suva Peninsula*. **MSc Biology**.
- Cuevas, Cleopatra (2017) *Knowledge, attitudes, and practices for dengue fever: Comparison of informal settlements and low-moderate socio-economic status neighbourhoods*. **MSc Environmental Science**.
- Miamoto, Kana (2016) *Exploring the potential of composting and recycling in Suva City, Fiji Islands*. **MA**

**Environmental Management.**

- Leba, Mere (2015) *Assessment of the impact of Single-Use Plastic Bags in a rural Fijian community: Perceptions on pollution, utility, and policy in Galoa Village, Fiji.* **MA Environmental Studies.**
- Reuben, Reginald (2013) *Spatial analysis of informal settlement growth and disaster management preparedness: A case study in Honiara City, Solomon Islands.* **MSc Climate Change.**
- Nishar, Abdul (2012) *Relevance and applicability of Participatory GIS for Maori development: A case study of Te Roopu Taio o Utakura.* **MA Geography.**

**Former Students (as Co-Supervisor—University of the South Pacific):**

- Nemillie Qaqara (2021) *Exploring the state of traditional ecological knowledge in the uses of marine resources: A case study of two villages in Fiji.* **MA Environmental Management.** (Co-supervisor with Dr Susanna Piovano).
- Teaurere, Rerekura (2021) *Existing and potential cross-sector collaborations and partnerships in the accommodation sector that contribute to sustainable solid waste management in Raortoga, Cook Islands.* **PhD Geography** (Co-supervisor with Professor Marcus Stephenson)
- Pouvalu, Siu (2018) *Development, testing and dissemination of the Community Mapping and QGIS tool-kit for disaster risk mapping.* **MSc Climate Change.** (Co-supervisor with Dr Jacot des Combes).
- Cawanibuka, Lasarusu (2016) *Concepts, challenges, perception, awareness and implications of climate change adaptation in the Fiji Islands.* **MA in Geography.** (Co-supervisor with Dr Eberhard Weber @ USP).
- Prasad, Avindra (2016) *Capture and consumption of sea turtles on Arnavon island, Solomon Islands.* **MSc Environmental Science.** (Co-supervisor with Dr Susanna Piovanno @USP)
- Subhash, Chand (2016) *Analysis of coastline changes in Ra Province using multi-scale and multi-temporal remote sensed imagery and GIS.* **MSc Environmental Science** (Co-Supervisor with Dr Nick Rollings @USP)
- Devi, Poonam (2015) *Empirical assessment of sustainability in the informal settlements of Fiji.* **MA Geography** (Co-supervisor with Dr Eberhard Weber @USP)
- Ben, Chethna (2015) *A spatial-economic approach to assessing “best use” of agricultural land in Sigatoka Valley, Fiji.* **Master of Land Management and Development** (Co-supervisor with Mr Kenneth Chambers @USP)
- Jessy Paquette (2011) *A GIS approach to flood modelling and mitigation in western Viti-Levu, Fiji Islands.* **MSc Environmental Science** (Ad hoc Co-Supervisor with Mr Conway Pene)

**EXTERNAL THESIS EXAMINER**

- Turagabaleti, Peni (2021) *Urban farming and its integration into urban planning in Fiji: A study of the Greater Suva Area.* **Master of Land Management and Development.** The University of the South Pacific. Supervisor: Prof. Mohanty Manoranjan.
- Singh, Ashinta (2020) *Examining urban crime and its socio-economic implications in Fiji: A case study of Suva City.* **MA Development Studies.** The University of the South Pacific. Supervisor: Prof. Mohanty Manoranjan.
- Singh, Harpeet (2020) *Examining economic inclusiveness of persons with disabilities in Fiji.* **MA Development Studies.** The University of the South Pacific. Supervisor: Prof. Mohanty Manoranjan.
- Peralta, Ahnivar Ancelmo (2019) *Coastal and sea level changes during the 2009-2011 El Nino Southern Oscillation on the coastline of Kaba Peninsular, Fiji.* **MSc Climate Change.** The University of the South Pacific. Supervisor: Dr Awnesh Singh.
- Cortez Ramirez, Javier (2019) *Incorporating epidemiological studies into Integrated Environmental Health Impact Assessment of Coal Mining.* **PhD Faculty of Medicine.** University of Queensland. Supervisor: Prof. Paul Jagels.
- Vakarura, Emosi (2018) *Health challenges among elderly and health care support system in Fiji: A case study of Tovata Settlement.* **MA Development Studies.** The University of the South Pacific. Supervisor Prof. Mohanty Manoranjan.

**INTERNAL THESIS EXAMINER**

**Massey University**

- Carter, Stefan (2023) *Landscape configuration and composition trends of indigenous forest using multi- and hyperspectral imagery*. **MSc Geography**. Supervisor: Prof. Ian Fuller.
- Williams, Forrest (2022) *Towards empirically validated models of soft-rock landslides' occurrence, activity, and sediment delivery*. **PhD Earth Science**. Supervisor: Dr. Sam McColl.
- Richardson, Nora (2021) The search for favourite places using the "My Favourite Place" web application. **Master of Information Sciences**. Supervisor: Dr. Kristin Stock.
- Lamria, Maslan (2019) *Increasing liquid fuel self-sufficiency in Indonesia through utilization of marginal land and appropriate technology for biofuel production*. **PhD Energy Management**. Supervisor: Prof. Ralph Sims.
- Da Conceicao Baptista, Elizabeth (2019) *Assessing the effectiveness of crowdsourced geographic information for solid waste management in developing countries*. **Master of Information Sciences**. Supervisor: Dr. Kristin Stock.

### The University of the South Pacific

- Garnett, Catherine (2017) *Urban livelihoods under a changing climate: A livelihood vulnerability assessment of informal settlements in Suva*. **MA Geography**. Supervisor: Dr. Eberhard Weber.
- Kopf, Andreas (2016). *Households' understanding, perceptions and adaptation to climate change and variability: Insights from the Fiji Islands*. **PhD Sociology**. Supervisor: Dr. Eberhard Weber.
- Anisi, Ramokasa (2014) *Ecology, ethnobotany and conservation status of ebony heartwood-producing *Disopyros species (Riehe)* on Vanunu, Western Solomon Islands*. **MSc Environmental Science**. Supervisor: Dr. Gillian Brodie.
- Oli, Kelera Salusalunitoba (2013) *The variability of dengue incidence in three localities in Fiji in relation to climate variability and change*. **MSc Climate Change**. Supervisor: Dr. Karen McNamara.
- Wendt, Hans Karl (2013) *Applying geographic information system and spatial conservation planning tools to strengthen the design of a community-based marine protected area network*. **MSc Marine Science**. Supervisor: Dr. William Aalbersberg.
- Pollard, Edgar (2013) *Evaluating tropical forest ecosystems: Using herpetofauna to determine conservation priority habitats on Malaita Island, Solomon Islands*. **MSc Environmental Science**. Supervisor: Dr. Gillian Brodie.

### PEER-REVIEWED PUBLICATIONS:

#### [Google Scholar profile](#)

\* Denotes supervised postgraduate student

- 2023 **Lowry, J. H.** and C. Korson (2023) From high school to postgraduate: Student perceptions of learning experiences creating ArcGIS StoryMaps. *Journal of Geography in Higher Education*. <https://doi.org/10.1080/03098265.2023.2255535>
- Forey, E., S.Y.F. Lodhar, S.D. Galvin, **J.H. Lowry**, S. Gopaul, G. Hanson, M. Carboni. M. Chauvat, and H.J. Boehmer (2023) Alien palm invasion leads to selective biotic filtering of resident plant communities towards competitive functional traits. *Biological Invasions*. <https://doi.org/10.1007/s10530-022-02991-4>
- Tran, D. X\*, E. Dominati, **J. Lowry**, A. Mackay, R. Vibart, D. Pearson, B Devantier, E. Noakes (2023) Effects of spatial data resolution on the modelling and mapping of soil organic carbon content in hill country grassland landscapes. *Soil Use and Management*. <https://doi.org/10.1111/sum.12966>
- Tran, D. X.\*, D. Pearson, A. Palmer, E.J. Domnati, D. Gray, and **J. Lowry** (2023) Integrating ecosystem services with geodesign to create multifunctional landscapes: a case study of a New Zealand hill country farm. <https://doi.org/10.1016/j.ecolind.2022.109762>
- 2022 **Lowry, J. H.** (2022) Potential applications of GIS for linguistic data. *Senri Ethnological Studies* 108: 59-74. <http://doi.org/10.15021/00009901>.

- Kikusawa, R. and **J. H. Lowry** (2022) Developing a Fijian language geographic information system. *Senri Ethnological studies* 108: 101-118. <http://doi.org/10.15021/00009903>.
- Kitolelei, S., **J.H. Lowry**, N. Qaqara\*, J. Ryle, J. Veitayaki and S. Piovano (2022) Spatial use of marine resources in a rural village: A case study from Qoma, Fiji. *Frontiers in Marine Science*. 9:993103. <https://doi.org/10.3389/fmars.2022.993103>
- Tran, D.X.\* , D. Pearson, A. Palmer, **J. Lowry**, D. Gray and E.J. Dominati (2022) Quantifying spatial non-stationarity in the relationship between landscape structure and the provision of ecosystem services: An example in the New Zealand hill country. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2021.152126>
- Tran, D.X.\* , D. Pearson, A. Palmer, D. Gray, **J. Lowry**, and E.J Dominati. (2022) A comprehensive spatially-explicit analysis of agricultural landscape multifunctionality using a New Zealand hill country farm case study. *Agricultural Systems*. <https://doi.org/10.1016/j.agsy.2022.103494>
- 2021 Tran, D.X.\* , T.V. Tran, D. Pearson, S.W. Myint, **J. Lowry**, and T.T. Nguyen (2021) Spatiotemporal analysis of forest cove change and associated environmental challenges: a case study in the Central Highlands of Vietnam. *Geocarto International*. <https://doi.org/10.1080/10106049.2021.2017013>
- Gali, A.\* , M. Mohammednezhad, M. Khan and **J. Lowry** (2021) Predictors of under Five Years Old Diarrhoeal Disease in Mataniko Informal Settlements in Solomon Islands. *Global Journal of Health Science* 13(2).
- Wotlolan, D.L.\* , **J.H. Lowry**, N.A. Wales, and K. Glencross (2021) Land suitability evaluation for multiple crop agroforestry planning using GIS and multi-criteria decision analysis: A case study in Fiji. *Agroforestry Systems* 95(8), 1519-1532.
- 2020 Lowry, B.J.\* , **J.H. Lowry**, K.J. Jarvis, G. Keppel, R.R. Thaman and H.J. Boehmer (2020) Spatial patterns of presence, abundance, and richness of invasive wood plants in relation to urbanization in a tropical urban area. *Urban Forestry and Urban Greening*.
- Gali, A.\* , K. Krishna, **J. Lowry**, M. Mohammadnezhad (2020) Environmental factors associated with diarrhoea provenance among under-five children in the Mataniko settlement in Honiara, Solomon Islands. *Rural and Remote Health*.
- 2019 Titoko, R.\* , **J. H. Lowry**, T. Osborne, A. Nakatini, J. Comely and R. Riley (2019) Relationship of bird richness, abundance and composition to the built environment in a small tropical island urban setting: A Suva, Fiji case study. *Urban Ecosystems*.
- 2018 Kim, S.H., Rinamalo, M., Rinima-Qaniuci, M., Talemaitoga, N., Kama, M., Rafai, E., **Lowry, J. H.** , Choi M-H, Hong, S-T, Verweij, J.J., Kelly-Hope, L., Stothard, J.R. (2018) Island-Wide surveillance of gastrointestinal protozoan infection on Fiji by expanding Lymphatic Filariasis transmission assessment surveys as an access platform. *American Journal of Tropical Medicine* 98(4):1179-1185. doi: 10.4269/ajtmh.17-0559.
- Mayfield, H.J., **J.H. Lowry**, C.H. Watson, M. Kama, E.J. Nilles, C.L. Lau (2018) Use of geographically weighted logistic regression to quantify spatial variation in the environmental and sociodemographic drivers of leptospirosis in Fiji: a modelling study. *Lancet Planet Health*; 2:e223-32.
- De Alwis, R., C. Watson, B. Nikloday, **J.H. Lowry**, N.T. Vu Thieu, T.T. Van, D.T. Thi Ngoc, K. Rawalai, M. Taufaa, J. Coriakula, C.L. Lau, E.J. Nilles, W. J. Edmunds, M. Kama, S. Baker, J. Cano (2018) Role of environmental factors in shaping spatial distribution of *Salmonella enterica* serovar Typhi, Fiji (2018). *Emerging Infectious Diseases*. 24(2): 284-293.
- Mayfield, H.J., C.S. Smith, **J.H. Lowry**, C.H. Watson, M.G. Baker, M. Kama, E.J. Nilles, C.L. Lau (2018) Predictive risk mapping of an environmentally-driven infectious disease using spatial Bayesian networks: A case study of leptospirosis in Fiji. *PLOS Neglected Tropical Diseases*. <https://doi.org/10.1371/journal.pntd.0006857>

- 2017 Lau, C.L., H. Mayfield, **J. H. Lowry**, M. Kama, E. Nilles, C. Watson and C. Smith (2017) Unravelling infectious disease eco-epidemiology using Bayesian networks and scenario analysis: A case study of leptospirosis in Fiji. *Environmental Modeling and Software*. 97:271-286.
- Gali, A.\*, K. N. Krishna, S. Khan, **J. Lowry**, T. Mangum, M. Mohammadnezhad (2017) Knowledge and practice of care-givers who have under-five diarrhoeal children: a quantitative cross-sectional study in Mataniko settlements in Honiara, Solomon Islands, 2016. *Global Health Journal* 1(2): 12-22.
- Watson, C. H., Baker, S., Lau, C. L., Rawalwai, K., Taufu, M., Coiakula, J., Tieu, T. T., Ngoc, D. T. T., Hens, N., **Lowry, J. H.**, de Alwis, Rukianthi, Cano, J., Jenkins, K., Mulholland, K. E., Niles, E. J., Kama, M, Edmunds, W. J. (2017). A cross-sectional seroepidemiological survey of typhoid fever in Fiji. *PLOS Neglected Tropical Diseases*, 11(7):e0005786.
- Sommer, H., A. Kröner and **J. Lowry** (2017) The collision of East and West Gondwana, linked with ocean closure, followed by the formation of Andean type continental arc domains and ending up in the formation of a Himalaya type collision belt: A petrological and geochronological approach from east-central Tanzania. *Lithos* 284-285: 666-690.
- Devi, P.\*, **J. H. Lowry** and E. Weber. (2017) Global environmental impact of informal settlements and perceptions of local environmental threats: An empirical case study in Suva, Fiji. *Habitat International*, 69: 58-76
- Stevens, M., **J. H. Lowry** and A. Ram. (2017) Location-based environmental factors contributing to major landslides in tropical Pacific Small Island Developing States (SIDS): Reconnaissance study of a La Niña episode heavy monsoon rainfall event in northwest Viti Levu Island, Fiji. *Landslides*. DOI 10.1007/s10346-017-0918-4
- 2016 Reuben, R.\* and **J. H. Lowry** (2016) Effectiveness of evacuation facilities in Honiara City, Solomon Islands: A spatial perspective. *Natural Hazards*. 82(1): 227-244.
- Lau, C.L., C. H. Watson, **J. H. Lowry**, M.C. David, S.B. Craig, S.J. Wynwood, M. Kama and E.J. Nilles (2016) Human Leptospirosis infection in Fiji: An eco-epidemiological approach to identifying risk factors and environmental drivers for transmission. *PLoS Neglected Tropical Diseases* 10(1):e0004405.
- 2014 **Lowry, J. H.** and M. B. Lowry (2014) Comparing spatial metrics that quantify urban form. *Computers, Environment and Urban Systems*. 44:59-67.
- 2012 Paquette, J.\* and **J. Lowry** (2012) Flood hazard modeling and risk assessment in the Nadi River Basin, Fiji using GIS and MCDA. *South Pacific Journal of Natural and Applied Sciences* 30: 33-43.
- Rivera, S., **J. Lowry**, A. J. Hernández, R.D. Ramsey, R. Lezama, M. Velázquez (2012) A comparison between cluster-busting technique and a classification tree algorithm of a moderate resolution imaging spectrometer (MODIS) land cover map of Honduras. *Geocarto International* 27(1): 17-19
- Lowry, J. H.**, M. E. Baker and R. D. Ramsey (2012) Determinants of urban tree canopy in residential neighborhoods: Household characteristics, urban form, and the geophysical landscape. *Urban Ecosystems* 15: 247-266
- 2011 **Lowry, J. H.**, R. D. Ramsey and R. K. Kjølgren (2011) Predicting urban forest growth and its impact on residential landscape water demand in a semiarid urban environment. *Urban Forestry & Urban Greening* 10: 193-204.
- Rivera, S., **J. Lowry**, A. J. Hernández, R.D. Ramsey, R. Lezama, M. Velázquez (2011) MODIS generated land cover mapping of Honduras: A base-line layout to create a national monitoring center. *Rivista de Teledetección* 35: 94-108.
- 2010 Hooten, M.B., Johnson, D.S., Hanks, E.M., and **J.H. Lowry** (2010) Agent-based inference for animal movement and selection. *Journal of Agricultural, Biological and Environmental Statistics* 15(4): 523-538.

- 2008 **Lowry, J. H.**, R. D. Ramsey, L. Langs-Stoner, J. Kirby and K. Schulz (2008) An ecological framework for evaluating map errors due to class similarity using fuzzy sets. *Photogrammetric Engineering and Remote Sensing* 74(12): 1509-1519.
- 2007 **Lowry, J.**, R. D. Ramsey, K. Thomas, D. Schrupp, T. Sajwaj, J. Kirby, E. Waller, S. Schrader, S. Falzarano, L. Langs, G. Manis, C. Wallace, K. Schulz, P. Comer, K. Pohs, W. Reith, C. Velasquez, B. Wolk, W. Kepner, K. Boykin, L. O'Brien, D. Bradford, B. Thompson and J. Prior-Magee (2007) Mapping moderate-scale land-cover over very large geographic areas within a collaborative framework: A case study of the Southwest Regional Gap Analysis Project (SWReGAP). *Remote Sensing of Environment* 108:59-73.
- 1995 **Lowry, J. H.**, H. J. Miller and G. F. Hepner (1995) A GIS based sensitivity analysis of community vulnerability to hazardous contaminants on the Mexico/US border. *Photogrammetric Engineering & Remote Sensing* 61(11):1347-1359.

#### BOOK CHAPTERS

- 2008 Langs, L. A., K. A. Thomas, **J. H. Lowry** and K. A. Schulz (2008) A gap analysis of ecological systems for the Colorado Plateau ecoregion using Southwest Regional Gap Analysis land cover. In *The Colorado Plateau III: Integrating Research and Resource Management for Effective Conservation*. C. van Riper III and D.J. Mattson (eds.). Tucson: The University of Arizona Press.
- 2005 Falzarano, S., K. Thomas and **J. Lowry** (2005) Using decision tree modeling in Gap analysis land cover mapping: preliminary results for northeastern Arizona. In *The Colorado Plateau II: Biophysical, Socioeconomic and Cultural Research*. C. van Riper III and D.J. Mattson (eds.). Tucson: The University of Arizona Press.

#### ORAL PRESENTATIONS (As Presenter and Primary Author)

- 2022 *The Fijian language GIS project*. New Zealand Geospatial Research Conference 2022. August 29-20 Wellington, New Zealand.  
*Using Padlet for peer assessment in cartography education*. GeoCart 2022 Conference. August 24-26, Wellington, New Zealand.
- 2020 *Participatory GIS & Indigenous Knowledge of marine resources: A case study of Qoma Village, Fiji*. New Zealand Geographical Society Conference. November 25-27, Wellington, New Zealand.
- 2018 *Mapping linguistic variations in Fiji: A digital atlas and spatial analysis – preliminary work*. New Zealand Geographical Society-Institute of Australian Geographers Conference. July 11-14, Auckland, New Zealand.  
*Potential GIS applications for linguistic data*. Fijian Languages GIS Symposium. National Museum of Ethnology. 18-21 September, Osaka, Japan.
- 2016 *Spatial accessibility of evacuation shelters in Port Vila, Vanuatu*. 23<sup>rd</sup> Pacific Science Congress. June 13-17, 2016. Taipei, Taiwan.
- 2015 *Spatial accessibility of evacuation shelters in Port Vila, Vanuatu*. Pacific Island Countries GIS/RS Users Conference. Nov. 17-21, 2015, Suva, Fiji Islands.
- 2014 *A geographic approach to assessing vulnerability to climate sensitive diseases in Fiji*. Pacific Island Countries GIS/RS Users Conference. Nov. 24- 29, 2014. Suva, Fiji Islands.
- 2013 *Learning remote sensing by doing: A student generated land use/cover map of the Fiji Islands using MODIS imagery*. Pacific Island Countries GIS/RS Users Conference. Nov. 18-21, Lami, Fiji Islands.
- 2011 *What should the University of the South Pacific teach students to prepare them for the GIS/RS workforce?* Discussion Leader, Pacific Island Countries GIS/RS Users Conference. Nov. 28-Dec. 2, 2011, Nabua, Fiji Islands.  
*An update on the Geo/Earthcache Programme for global environmental change education and awareness at the University of the South Pacific*. Pacific Island Countries GIS/RS Users Conference. Nov. 29-Dec. 2, 2011, Nabua, Fiji Islands

- 2009 *Establishing a Geo/Earthcache Programme for global environmental change education and awareness in the South Pacific.* Pacific Island Countries GIS/RS Users Conference. 23-26 November, 2010. Suva, Fiji Islands.
- Measuring Urban/Suburban Form: A Spatial and Demographic Characterization of Residential Neighborhoods in Salt Lake County, Utah.* Association of American Geographers Annual Meeting. April 14-18, 2010, Washington D.C.
- 2009 *Urban Areas as Ecosystems: An Assessment of the Relationship between Tree Canopy Cover and Human Dimensions of Neighborhoods.* 2009 US-International Association for Landscape Ecology Symposium, April 12-16, 2009, Snowbird, Utah.
- Urban Areas as Ecosystems: An Assessment of the Relationship between Tree Canopy Cover and Urbanicity.* Association of American Geographers Annual Meeting, March 22-27, 2009, Las Vegas, Nevada.
- 2008 *Mapping Suburban Sprawl: A Factorial Ecology Approach for the Salt Lake City Urban Area.* Association of American Geographers Annual Conference. Boston, MA, April 15-19, 2008.
- 2007 *An Ecological Framework for Fuzzy Set Accuracy Assessment of Remote Sensing-based Land-cover Maps.* American Society for Photogrammetry and Remote Sensing Annual Conference, Tampa, Florida, May 7-11, 2007.
- An Ecological Framework Approach for Fuzzy Set Error Assessment of Land-Cover Maps.* US-International Association for Landscape Ecology, Tucson, Arizona, April 9-13, 2007.
- 2005 *An Overview of the Southwest Regional Gap Land cover Dataset,* National Gap Analysis Conference and Interagency Symposium, Reno, NV, Dec. 5-8, 2005.
- Land Cover Mapping for a 5-State Region: A Retrospective of the Southwest Regional Gap Analysis Project.* Pecora 16—Global Priorities in Land Remote Sensing, Sioux Falls, South Dakota, October 23-27, 2005.
- An Overview of the Southwest Regional GAP Land Cover Dataset.* Resource Management Tools & Geospatial Conference. April 18-22, 2005. Phoenix, Arizona.
- 2003 *Land Cover Mapping for the Southwest Regional Gap Analysis Project* The Association of American Geographers Centennial Meeting, 14-19 March, 2004, Philadelphia, PA.
- Land Cover Mapping Background: Training Data and Classification Methods* The 19th Annual Symposium International Association for Landscape Ecology United States Regional Association (US-IALE), March 30-April 2, 2004, Las Vegas, NV.
- Land Cover Mapping for the Southwest Regional Gap Analysis Project* Tenth Biennial USDA Forest Service Remote Sensing Applications Conference, April 5-9, 2004, Salt Lake City, UT.
- 2003 *Lessons Learned: Land cover mapping for the Southwest Regional GAP Analysis Project.* 13<sup>th</sup> Annual Meeting: Scientific Data for Conservation. National Gap Analysis Program. Fort Collins, Colorado. October 6-9, 2003.
- Land Cover Mapping for the Southwest Regional GAP Analysis Project.* 2003 Utah Geographic Information Council Conference, Sherwood Hills Resort, Utah. Sept 8-10, 2003.
- 2002 *Mapping Land Cover over Large Geographic Areas: Integrating GIS and Remote Sensing Technologies.* 22<sup>nd</sup> Annual ESRI International User Conference. San Diego, CA July 8-12, 2002.
- 2000 *Internet Map Server Implementation issues and Technical Considerations,* (moderator for panel discussion), Southwest User's Group Conference 2000, Moab, Utah, November 6-9, 2000.

**GRANTS and CONTRACTS (As Principal Investigator)**

- 2019 *Web-GIS and Spatial Analysis of Fijian Language Communalects.* Massey University Research Fund



- (2019; **NZD \$8,835**)
- 2016 *Improving disaster preparedness through more effective evacuation planning.* (2016-2018; **FJD \$49,623**; USP Strategic Research Theme Grant)
- 2012 *Investigating the correlation between geography and poverty in the Fiji Islands.* (2012-2013; **FJD \$8,669**; FSTE, USP Faculty Research Committee Grant)
- 2010 *Establishing a Geo/Earthcache Program for Global Environmental Change Education and Awareness in the South Pacific* (2010-2011; **FJD \$49,600**; American Embassy in Suva, Fiji).
- 2009 *Technical Transfer of Remote Sensing Land Cover Mapping Training for Development of Land Cover & Ecosystem Maps of Honduras, Central America* (2007-2009; **USD \$68,000**; Escuela Nacional de Ciencias Forestales-ESNACIFOR, Honduras).
- Feature Extraction Wildland-Urban Interface* (2009; **USD \$10,000**; State of Utah Automated Geographic Reference Center).
- 2008 *Feature Extraction of Urban Structures* (2008; **USD \$25,000**; State of Utah Automated Geographic Reference Center).
- 2007 *Utah State University Campus Planning GIS and Internet Map Server* (2007; **USD \$10,000**; Utah State University).
- 2006 *Geodatabase and Metadata Creation for The Nature Conservancy, Mesoamerica and Caribbean Region* (2006; **USD \$22,400**; The Nature Conservancy).
- 2004 *Metadata Generation for the Inter-Mountain Digital Image Archive Project* (2003; **USD \$8800**; Federal Geographic Data Committee, CAP).
- 2000 *GIS and Remote Sensing Mapping for Sage Grouse Habitat* (2000-2003; **USD \$90,000**; US Bureau of Land Management, Salt Lake Field Office).
- Utah Test and Training Range, Hill Air Force Base, SPOT Imagery Vegetation Classification* (2000; **USD \$17,500**; Utah Division of Wildlife Resources).
- GIS Services of Photo Interpretation and Digitizing Riparian Cover* (2000; **USD \$3500**; US Bureau of Reclamation).

#### **GRANTS and CONTRACTS (As Co-Investigator)**

- 2016 *Traditional Ecological Knowledge (TEK) effects on resilience of marine resources in the Pacific Islands at time of climate change—Fiji case study.* (2016-2017; **FJD \$48,470**; USP Strategic Research Theme Grant)
- 2016 *Structure and dynamics of Viti Levu's montane rainforests under impact of invasive alien ivory cane palm (*Pinanga coronata*).* (2016-2018; **FJD \$78,000**; USP Strategic Research Theme Grant)
- 2012 *Enhancing economic opportunities offered by community and smallholder forestry in the Solomon Islands* (2012-2016; **AUD \$1,399,841**; Australian Centre for International Agricultural Research).
- 2001 *Collaborative data collection and development of rangeland land cover classification methods for central Utah* (2002-2004; **USD \$278,575**; USGS).
- 1999 *Development and Coordination of a Region-wide Gap Analysis Project for Utah, Nevada, Colorado, Arizona, and New Mexico* (1999-2005; **USD \$1,120,000**; USGS BRD GAP).

#### **CONSULTING ACTIVITIES and SERVICE**

- 2016 **Consultancy** World Health Organization (WHO) Strengthening Disaster Response through GIS.
- 2014 **External Reviewer** of the Department of Geography, Faculty of Arts, National University of Samoa. Apia, Samoa. May 26-28, 2014.
- 2010 Development of a *Genuine Progress Indicator* (GPI) study for the State of Utah. *Pro bono* for Utah Population and Environment Coalition (UPEC). <http://www.utahpop.org/gpi.html>
- 2007 Development of an *Ecological Footprint Analysis* for the State of Utah. *Pro bono* for Utah Population and Environment Coalition (UPEC). <http://www.utahpop.org/vitalsigns/index.htm>

**PROCEEDINGS, BULLETINS and PUBLISHED REPORTS**

- 2012 Ramsey, R. D., C. M. McGinty, **J. H. Lowry**, E. I. Leydsman McGinty, L. A. Langs Stoner, B. A. Crabb, W. A. Adair, A. Hernandez, M. E. Baker, J. C. Schmidt, M. Majerova, B. Hudson, and A. K. Montrone (2012) Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway: Natural resource condition assessment. *Natural Resource Report NPS/GRYN/NRR—2012/550*. National Park Service, Fort Collins, Colorado.
- 2008 **Lowry, John**, William G. Kepner, Kenneth G. Boykin, Kathryn A. Thomas, Donald L. Schrupp, and Pat Comer (2008) Contemporary Digital Land-Cover Mapping for the American Southwest—The Southwest Regional Gap Analysis Project. In *Proceedings of a USGS Workshop on Facing Tomorrow's Challenges Along the US-Mexico Border—Monitoring, Modeling, and Forecasting Change Within the Arizona-Sonora Transboundary Watersheds*. U.S. Dept. of Interior, U.S. Geological Survey, Circular 1322.
- 2006 **Lowry, J. H., Jr.**, R. D. Ramsey, K. A. Thomas, D. Schrupp, W. Kepner, T. Sajwaj, J. Kirby, E. Waller, S. Schrader, S. Falzarano, L. Langs, G. Manis, C. Wallace, K. Schulz, P. Comer, K. Pohs, W. Rieth, C. Velasquez, B. Wolk, K., Boykin, L. O'Brien, J. Prior-Magee, D. Bradford and B. Thompson (2006) Land cover classification and mapping. Chapter 2 in J.S. Prior-Magee, et al., eds. *Southwest Regional Gap Analysis Final Report*. U.S. Geological Survey, Gap Analysis Program, Moscow, ID.
- Langs, L., **J. H. Lowry**, K. Wells and R. D. Ramsey (2006) Application of Southwest Regional GAP data to the Forest Stewardship Program's Spatial Analysis Project in Utah. *GAP Analysis Bulletin No. 14*, U.S. Geological Survey.
- Boykin, Kenneth G., Lisa Langs, **John Lowry**, Don Schrupp, David Bradford, Lee O'Brien, Kathryn Thomas, Charles Drost, Andrea Ernst, William Kepner, Julie Prior-Magee, Doug Ramsey, Wendy Rieth, Todd Sajwaj, Keith Schulz, Bruce C. Thompson (2006) Analysis based on stewardship and management status. Chapter 5 in J.S. Prior-Magee, et al., eds. *Southwest Regional Gap Analysis Final Report*. U.S. Geological Survey, Gap Analysis Program, Moscow, ID.
- Langs, Lisa, Kenneth G. Boykin, **John Lowry**, Andrea Ernst, David Bradford, William Kepner, Julie Prior-Magee, Keith Schulz, Don Schrupp, Kathryn Thomas (2006) Conclusions and management implications. Chapter 6 in J.S. Prior-Magee, et al., eds. *Southwest Regional Gap Analysis Final Report*. U.S. Geological Survey, Gap Analysis Program, Moscow, ID.
- 2005 **Lowry, J.** (2005) A brief overview of the Southwest Regional GAP land-cover mapping effort. *GAP Analysis Bulletin No. 13*, U.S. Geological Survey.
- Adair, W. A., R. D. Ramsey, **J. H. Lowry** (2005) Developing an Empirical Rangeland Cover Legend for the Intermountain West. Final Report submitted to USGS Eros Data Center, 29 April, 2005.
- 2004 **Lowry, J.**, and R. Douglas Ramsey (2004) Land-cover mapping for the Southwest Regional Gap Analysis Project. Remote Sensing for Field Users. Jerry Dean, Editor. *Proceedings from the Tenth Biennial Forest Service Remote Sensing Applications Conference*, April 5-9, 2004, Salt Lake City, UT.
- Lowry, J.**, C. Garrard and R. D. Ramsey (2004) Land-cover mapping using StatMod: An ArcView 3.x extension for Classification Trees using SPLUS. *GAP Analysis Bulletin No. 12*, U.S. Geological Survey.
- 2002 **Lowry, J.**, R. D. Ramsey and G. Manis (2002) Mapping land cover over large geographic areas: Integrating GIS and remote sensing technologies. *Proceedings of the 22<sup>nd</sup> Annual ESRI International User Conference*. San Diego, CA July 8-12, 2002.
- 2001 Manis, G., **J. Lowry** and R. D. Ramsey (2001) Pre-classification: An ecologically predictive landform model. *GAP Analysis Bulletin No. 10*, U.S. Geological Survey.
- Lowry, J.** (2001) Vegetation Mapping using Landsat ETM for Sage Grouse Habitat Management, Rich County, Utah. Final Report submitted to Bureau of Land Management, LEMA Center, February 2001.
- 2000 Manis, G., C. Homer, R. D. Ramsey, **J. Lowry**, T. Sajwaj and S. Graves (2000) The development of Mapping Zones to assist in Land Cover mapping over large geographic areas: A case study of the Southwest ReGAP Project. *GAP Analysis Bulletin No. 9*, U.S. Geological Survey.
- Lowry, J.** (2000) Utah Test and Training Range, Hill Air Force Base SPOT Imagery Vegetation Classification. Final Report submitted to Hill Air Force Base, December 2001.

### INVITED WORKSHOPS, SHORT COURSES and ORGANIZED FIELD TRIPS

- 2014 *GIS Workshop using Quantum GIS for Pacific Centre for Environment and Sustainable Development.* The University of the South Pacific, Laucala Campus, Suva, Fiji. January 28-31
- 2010 *GIS Workshop for the World Wildlife Fund.* The University of the South Pacific, Laucala Campus, Suva, Fiji. December 8-10, 2010.
- 2009 *The Cultural Landscape of Cache Valley, Utah.* Field Trip organizer. Association of American Geographers-Great Plains-Rocky Mountain Division, Annual Meeting. Logan, Utah, 25-26, Sep., 2009.  
*Regional Urbanization on the Wasatch Front: The Cultural and Natural Landscape of the Salt Lake Valley.* Field trip organizer. 2009 US-International Association for Landscape Ecology Symposium, Coupling Humans and Complex Ecological Landscapes. April 12-16, 2009, Snowbird Utah.
- 2008 *Curso Corto de SIG,* Escuela Nacional de Ciencias Forestales—ESNACIFOR, Siquatepeque, Honduras. May 12-14, 2008.
- 2006 *GIS Short Course,* Bonneville Chapter, American Fisheries Society. Park City, UT, March 20, 2006.
- 2005 *Southwest Regional GAP Project Data Product Debut,* National Gap Analysis Conference and Interagency Symposium, Reno, NV, December 5, 2005.

### POSTER PRESENTATIONS (As Primary Author)

- 2009 *Modeling Urban/Suburban Form: A Spatial and Demographic Characterization of Residential Neighborhoods.* 2009 International ESRI User Conference, San Diego, California, July 13-17, 2009.
- 2005 *Mule Deer Habitat of the Western United States.* 2005 International ESRI User Conference, San Diego, California, July 25-29, 2005.
- 2004 *Herramientas para la aplicación espacial de Árboles de Clasificación en el mapeo de la cobertura de la Tierra.* VI Congreso Nacional de Áreas Protegidas de Mexico. Monterrey, Mexico. November 3-6, 2004.  
*El mapeo de la cobertura del uso de la tierra para áreas geográficas grandes: Una descripción del Proyecto GAP Regional del suroeste de los Estados Unidos.* VI Congreso Nacional de Áreas Protegidas de Mexico. Monterrey, Mexico. November 3-6, 2004.
- 2003 *Tools for Spatially Applying Classification Trees for Land Cover Mapping.* 13<sup>th</sup> Annual Meeting: Scientific Data for Conservation. National Gap Analysis Program. Fort Collins, Colorado. October 6-9, 2003.
- 2000 *The Development of Mapping Zones to Assist in Land Cover Mapping Over Large Geographic Areas* GAP Analysis Conference 2000, San Antonio, Texas, August 13-17, 2000.  
*Field Data Collection Strategies for Land Cover Mapping, GAP Analysis Conference 2000, San Antonio, Texas, August 13-17, 2000.*

### PROFESSIONAL and ACADEMIC HONOURS

- **Selected Participant,** National Science Foundation and Social Science Research Council, Snowbird Charrette for Environmental Research Design, Cliff Lodge, Snowbird, Utah, August 24-28, 2006.
- **First Place ESRI Award at ASPRS National Convention (primary author),** *A GIS based Sensitivity Analysis of Community Vulnerability to Hazardous Contaminants on the Mexico/US Border* (article published November 1995 in *PE&RS*). American Society for Photogrammetry and Remote Sensing Annual Convention and Exposition, Baltimore, Maryland, 1996.
- **Second Place ESRI Poster Competition (co-author),** *Animated GIS on the World Wide Web,* 1996 International ESRI User Conference, Palm Springs, California.

### PROFESSIONAL AFFILIATIONS

New Zealand Geographical Society (NZGS) 2017- present  
Association of American Geographers (AAG) 1994-1995; 2007-2012

John H. Lowry Jr.

US International Association for Landscape Ecology (US-IALE) 2003-2010  
American Society for Photogrammetry and Remote Sensing (ASPRS) 1994-1995; 2005-2009

**JOURNAL/BOOK REVIEWER**

*Ecological Modeling*  
*Environment & Planning A*  
*Gap Analysis Bulletin*, U.S. Geological Survey  
*Photogrammetric Engineering & Remote Sensing*  
*Geocarto International*  
*International journal of Disaster Risk Reduction*

*Urban Ecosystems*  
*ESRI Press*  
*Urban Forestry & Urban Greening*  
*Danish Journal of Geography*  
*New Zealand Geographer*

**CITIZENSHIP**

United States and Canadian

**LANGUAGE PROFICIENCY**

English – native speaker  
Spanish – fluent – Independent B2 (Common European Framework of Reference for Languages)