

# Marina Alberti

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## EDUCATION

Ph.D. Urban and Regional Planning, 1992, Massachusetts Institute of Technology,  
Cambridge, MA

B.A. Urban Planning, 1981, University of Venice, School of Architecture, Venice, Italy

## APPOINTMENTS

- Marsha and Jay Glazer Endowed University Professor of Urban Design and Planning, University of Washington, College of Built Environments 2015-present
- Professor of Urban Design and Planning, University of Washington, College of Built Environments, 2008-present
- Director, Interdisciplinary Ph.D. Program in Urban Design and Planning, 2005-2017
- Director of the UW Urban Ecology Research Lab, College of Built Environments, 2000-present
- Associate Dean for Research, College of Built Environments, 2014-present
- Adjunct Professor, Landscape Architecture, University of Washington, College of Built Environments, 1998-present
- Associate Professor of Urban Design and Planning, University of Washington, College of Architecture and Urban Planning, 2000-2007
- Assistant Professor of Urban Design and Planning, University of Washington, College of Architecture and Urban Planning, 1996-2000
- Postdoctoral Fellow, Stanford University, Department of Biological Science, 1995-1996
- Senior Expert, European Environment Agency Task Force, Commission of the European Communities Directorate-General XI, Brussels, Belgium, 1991-1994

## PUBLICATIONS

### Books Forthcoming

Alberti, M. *Bio-Cooperative Cities: Eco-Evolutionary Strategies for a Hybrid Planet*. Signed contract with MIT Press. (Expected 2021)

### Books

Alberti, M. 2016 *Cities That Think Like Planets: Complexity, Resilience, and Innovation in Hybrid Ecosystems*. UW Press.

Alberti, M. 2008. *Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems*. Springer-Verlag.

Marzluff, J., Shulenberg, E., Endlicher, W., Bradley, G., Alberti, M., Ryan, C., Simon, U. and C. ZumBrunnen (Eds.) 2008. *Urban Ecology: An International Perspective on the Interaction between Humans and Nature*. Springer-Verlag.

Alberti, M., Solera, G., and V. Tsetsi. 1994. *Sustainable Cities*. F. Angeli, Rome. (In Italian)

Alberti, M., Bianchi, D., Brevi, F., Carrara, R., and D. Dovera. 1991. *Planning for the Clean Up of Contaminated Sites*. F. Angeli, Rome. (In Italian)

# Marina Alberti

- Bettini, V., Alberti, M., Falqui, E., and G. Bollini. 1988. *Environmental Impact Assessment Methods*. CLUP-CLUED, Milan. (In Italian)
- Alberti, M., Berrini, M., Melone, A. and M. Zambrini. 1988. *Environmental Impact Assessment: Instruction for Use*. F Angeli, Rome. (In Italian)
- Bettini, V., Falqui, E., and M. Alberti. 1984. *Environmental Impact Analysis*. CLUP-CLUED, Milan. (In Italian).

## Peer Reviewed Publications

- Alberti, M.**, Palkovacs, E.P., Des Roches, S., De Meester, L., Brans, K.I., Govaert, L., Grimm ,N.B., Harris, N.C., Hendry, A.P., Schell, C.I., Szulkin M., Munshi-South, J., Urban, M.C., Verrelli, B.C.. 2020. *Accepted*. "The Complexity of Urban Eco-Evolutionary Dynamics." *BioScience* <https://doi.org/10.1093/biosci/biaa079>
- Des Roches S, Brans KI, Lambert ML, Rivkin LR, Savage AM, Schell CJ, Correa C, De Meester L, Diamond S, Govaert L, Grimm NB, Harris NC, Hendry AP, Johnson M, Palkovacs EP, Schell CI, Szulkin M, Munshi-South J, Urban MC, Verrelli BC, and **Alberti M.** 2020 Socio-Eco-Evolutionary Dynamics in Cities". *Evolutionary Applications* <https://doi.org/10.1111/eva.13065>
- Rivkin, R., J. S. Santangelo, **M. Alberti**, M. F. J. Aronson, C. de Keyzer, S. E. Diamond, M. J. Fortin, L. J. Frazee, A. J. Gorton, A. P. Hendry et al. 2018. A roadmap for urban evolutionary ecology. *Evolutionary Applications*. Evolutionary Applications. 12:384-398. doi: 10.1111/eva.12734
- Wentz, E., York, A.M, **Alberti, M.**, Conrow, L., Fischer, H., Inostroza, L., Jantz, C., Pickett, S.T.A., Seto, K.C., Taubenböck, H. 2018. Six Fundamental Aspects for Conceptualizing Multidimensional Urban Form. *Landscape and Urban Planning*. 179, 55-62.
- Frank, A., Carroll-Nellenback, J., **Alberti, M.**, Kleidon, A. 2018. The Anthropocene Generalized: Evolution of Exocivilizations and their Planetary Feedback. *Astrobiology*. 18(5), 503-518. doi:[10.1089/ast.2017.1671](https://doi.org/10.1089/ast.2017.1671).
- Alberti, M.** 2017. Grand Challenges in Urban Science. *Frontiers in Built Environment, Urban Science* 3 DOI=10.3389/fbuil.2017.00006
- Alberti, M.** 2017. "Simulation and Design of Hybrid Ecosystems." *Technology|Architecture + Design*. Volume 1, 2017 - Issue 2
- Alberti, M.**, Correa, C., Marzluff, J., Hendry, A., Palkovacs, E. P., Gotanda, K., Hunt, V., Apgar, T. M. and Y. Zhou. 2017. Global urban signatures of phenotypic change in animal and plant populations. *Proceeding of the National Academies of Science (PNAS)* <http://www.pnas.org/content/early/2017/01/01/1606034114>
- Alberti, M.**, Marzluff, J., and Hunt, V. M. 2017. Urban driven phenotypic changes: empirical observations and theoretical implications for eco-evolutionary feedback. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 372(1712), 20160029. <https://doi.org/10.1098/rstb.2016.0029>
- Frank, A., Kleidon, A. and **M. Alberti**. 2017. Earth as a Hybrid: The Anthropocene in an Evolutionary Astrobiological Context. *Anthropocene*. <https://doi.org/10.1016/j.ancene.2017.08.002>
- McPhearson, T., Pickett S.T.A., Grimm, N., Niemelä, J., **Alberti, M.**, Elmqvist, T., Weber, C., Haase, D., Breuste, J. and S. Qureshi. 2016. Advancing Urban Ecology Towards a Science of Cities. *BioScience* **66** (3), 198 – 212].
- Alberti, M.** 2015. Eco-Evolutionary Dynamics in an Urbanizing Planet. *Trends in Ecology and Evolution*, DOI: <http://dx.doi.org/10.1016/j.tree.2014.11.007>
- Alberti, M.** 2015. The Anthropocene City. In Trischler, H. Leinfelder, R. Möllers, N., Keogh L. and C. Schwaegerl. *The Anthropocene* (in English and German). Deutsche Museum. Germany.
- Whitlow, T.H., Pataki DA, **Alberti M**, Pincetl S, Setala H, Cadenasso M, Felson A, McComas K *Environ Pollut*. 2014 Comments on "Modeled PM2.5 removal by trees in ten U.S. cities and associated health effects" by Nowak et al. 2014. pii: S0269-7491(14)00124-9. doi: 10.1016/j.envpol.2014.03.033.

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- Pataki DE, Alberti M, Cadenasso ML, Felson AJ, McDonnell MJ, Pincetl S, Pouyat RV, Setala H, Whitlow TW. 2013. City trees: Urban greening needs better data. *Nature* 502: 624.
- Alberti, M.** and L. Hutya. 2013. Carbon signatures of development patterns along a gradient of urbanization. D. T. Robinson, D. G. Brown, N. French, and B. Reed (Eds) *Land Use and the Carbon Cycle Science and Applications in Coupled Natural-Human Systems*. Cambridge University Press.
- Hutya, L. R., Yoon, B., and **M. Alberti**. 2011. Terrestrial carbon stocks across a gradient of urbanization: Study of the Seattle, WA region. *Global Change Biology*, 17 (2): 783–787.
- Cuo, L., Beyene, T.K., Viosin, N., Su, F., Lettenmaier, D.P., **Alberti, M.**, and J.E. Richey. 2011. Effects of mid-twenty-first century climate and land cover change on the hydrology of the Puget Sound basin, Washington. *Hydrological Processes*. 25.
- Hutya, L. R., Yoon, B., Hepinstall-Cymerman, J., and **Alberti, A.** 2011. Land cover change in the Seattle metropolitan region: An examination of spatio-temporal patterns and carbon consequences. *Landscape and Urban Planning* 103: 83-93.
- Alberti, M.** 2010. Maintaining ecological integrity and sustaining ecosystem function in urban areas. *Current Opinion in Environmental Sustainability*, 2 (3): 178-184.
- Hepinstall-Cymerman, H, Coe, S. and **M Alberti**. 2009. Using Urban Landscape Trajectories to Develop a Multi-Temporal Land Cover Database to Support Ecological Modeling. *Remote Sensing*, 1 (4) 1373-1379.
- Hepinstall, J.A., J.M. Marzluff, **M. Alberti**. 2009. Predicting avian community responses to increasing urbanization. *Studies in Avian Biology*.
- Blanco, H., **Alberti, M.**, Forsyth, A., Krizek, K.J., Rodriguez, D.A., Talen, E., Ellis, C. 2009. Hot, congested, crowded and diverse: Emerging research agendas in planning. *Progress in Planning*, 71: 153-205.
- Blanco, H., **Alberti, M.**, Olshansky, R., Chang, S., Wheeler, S.M., Randolph, J., London, J.B., Hollander, J.B., Pallagst, K.M., Schwarz, T., Popper, F.J., Parnell, S., Pieterse, E., Watson, V. 2009. Shaken, shrinking, hot, impoverished and informal: Emerging research agendas in planning. *Progress in Planning*, 72: 195-250, Part 4.
- Cuo, L., Lettenmaier, D. P., **Alberti, M.**, Richey, J. E. 2009. Effects of a century of land cover and climate change on the hydrology of the Puget Sound basin. *Hydrological Processes*, 23 (6): 907-933.
- Shandas, V and M. Alberti, 2009. Exploring the role of vegetation fragmentation on aquatic conditions: Linking upland with riparian areas in Puget Sound lowland streams. *Landscape and Urban Planning*, 90: 66-75.
- Powell, S., Cohen, W., Yang, Z., Pierce, J., and **M. Alberti**. 2008. Quantification of impervious surface in the Snohomish water resources inventory area of Western Washington from 1972 to 2006. *Remote Sensing of Environment*, 112(4): 1895-1908.
- Rottle, N., and M. Alberti 2008. Climate change and place. *Places*, 20 (2): 4-7.
- Hepinstall, J. A., **M. Alberti**, and J. M., Marzluff. 2008. Predicting land cover change and avian community responses in rapidly urbanizing environments. *Landscape Ecology*, 23: 1257-1276.
- Alberti, M.** 2007. Ecological signatures: Seeking a more scientific understanding of sustainable urban forms. *Places*, 19 (3): 56-60.
- Liu, J., T. Dietz, S. Carpenter, **M. Alberti**, C. Folke, E. Moran, A. Pell, P. Deadman, T. Kratz, J. Lubchenco, E. Ostrom, Z. Ouyang, W. Provencher, C. Redman, S. Schneider, and W. Taylor. 2007. Complexity of coupled human and natural systems. *Science*, 317: 1513-1516.
- Liu, J., T. Dietz, S. Carpenter, C. Folke, **M. Alberti**, C. Redman, S. Schneider, E. Ostrom, A. Pell, J. Lubchenco, W. Taylor, Z. Ouyang, P. Deadman, T. Kratz, and W. Provencher. 2007. Coupled human and natural systems. *Ambio*, 36(8): 639-649.
- Alberti, M.**, D. Booth, K. Hill, C. Avolio, B. Coburn, S. Coe, and D. Spirandelli. 2007. The impact of urban patterns on aquatic ecosystems: An empirical analysis in Puget lowland subbasins. *Landscape and Urban Planning*, 80: 345–361.
- Alberti, M.** 2007. Ecological signatures: The science of sustainable urban forms. *Places*, 19(3): 56-60.

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- Morawitz, D., T. Blewett, A. Cohen, and M. Alberti. 2006. Using NDVI to assess vegetative land cover change in Central Puget Sound. *Environmental Monitoring and Assessment*, 114(1-3): 85-106.
- Alberti, M.** 2005. The effects of urban patterns on ecosystem function. *International Regional Science Review*, 28: 168-192.
- Alberti, M.** and J. Marzluff. 2004. Resilience in urban ecosystems: Linking urban patterns to human and ecological functions. *Urban Ecosystems*, 7: 241-265.
- Alberti, M.**, R. Weeks, and S. Coe. 2004. Urban land cover change analysis for the Central Puget Sound: 1991-1999. *Journal of Photogrammetry and Remote Sensing*. 70: 1043-1052.
- Alberti, M.**, J. Marzluff, E. Shulenberger, G. Bradley, C. Ryan, and C. Zumbunnen. 2003. Integrating humans into ecology: Opportunities and challenges for urban ecology. *BioScience*, 53 (12): 1169-1179.
- Alberti, M.**, and P. Waddell. 2000. An integrated urban development and ecological model. *Integrated Assessment*, 1: 215-227.
- Alberti, M.** 1999. Modeling the urban ecosystem: A conceptual framework. *Environment and Planning, B*. 26: 605-630.
- Alberti, M.** 1999. Urban patterns and environmental performance: What do we know? *Journal of Planning Education and Research*, 19 (2): 151-163. [L1] [SEP]
- Alberti, M.** 1997. Measuring urban sustainability. *Environmental Impact Assessment Review*, Special Issue, 16 (4-6): 381-424. [L1] [SEP]
- Alberti, M.**, and L. Susskind (Eds). 1997. Managing urban sustainability. *Environmental Impact Assessment Review*, Special Issue, 16 (4-6): 213-221. [L1] [SEP]
- Daily, G. C., P. R. Ehrlich, and M. Alberti. 1996. Managing Earth's life support systems: The game, the players, and getting everyone to play. *Ecological Applications*, 6 (1): 19-21. [L1] [SEP]
- Alberti, M.** 1994. Regional integration and environmental policy in Europe. *Environmental Impact Assessment Review*, 14 (2-3): 137-146. [L1] [SEP]
- Alberti, M.**, and J. Parker. 1991. Indices of environmental quality: The search for credible measures. *Environmental Impact Assessment Review*, 11(2): 95-101.

## Other Peer-Reviewed Publications and Book Chapters

- Alberti, M.**, McPhearson, T. and A. Gonzales. Complex Urban Systems. In Elmqvist T. Et al. (Eds.) 2018. *The Urban Planet: Patterns and Pathways to the Cities We Want*. Future Earth.
- McPhearson, T. Auch, R. and M. **Alberti** 2013. *Cities and Biodiversity Outlook: North America Cities and Biodiversity Outlook (CBO): Scientific Analyses and Assessment*. UNEP-CBD, Springer-Verlag.
- Elmqvist, T. Fragkias, M., Goodness, J., Guneralp, B., McDonald, R., Marcotullio, P. Parnell, S., Schewenius, M., Sendstad, M., Seto, K., Wilkinson, C., **Alberti, M.**, Folke, C., Haase, D., Katti, M., Niemelä, J., Tidball, K., Nagendra, H. Pickett, S., Redman c. 2013. Stewardship of the Biosphere in the Urban Era. Chapter 15. *Cities and Biodiversity Outlook (CBO): Scientific Analyses and Assessment*. UNEP-CBD, Springer-Verlag.
- Alberti, M.** and L. Hutyrá. 2011. Detecting Carbon Signatures of Development Patterns across a Gradient of Urbanization: Linking Observations, Models, and Scenarios. World Bank. Forthcoming.
- Rottle, N. and **M. Alberti**, guest editors 2008. Climate Change and Place, special issue of *Places: Forum of Design for the Public Realm* 20/2.
- Alberti, M.**, P. Christie, J. Marzluff, and J. Tewksbury. 2007. Interactions between natural and human systems in Puget Sound. Sound Science: Synthesizing Ecological and Socioeconomic Information about the Puget Sound Ecosystem. *NOAA*, January 2007.
- Alberti, M.**, C. Redman, J. Wu, J. Marzluff, M. Handcock, J. Anderies, P. Waddell, D. Fox, H. Kautz, and J. Hepinstall. 2006. Urban landscape patterns and global environmental change (GEC): Complex dynamics and emergent properties. *International Human Dimension of Global Climate Change*. Spring 2006.
- Alberti, M.** 2005. "The Effects of Urban Patterns on Ecosystem Function." *International Regional*

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*Science Review* 28(2):169-192.

- Alberti, M.**, J. A. Hepinstall, S. E. Coe, R. Coburn, M. Russo, and Y. Jiang. 2005. Modeling urban patterns and landscape change in Central Puget Sound. *International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences* Vol. XXXVI, P. 8/W27 ISSN 1682-1777.
- Alberti, M.**, S. Coe, and R. Weeks. 2003. Land cover change in Puget Sound in urbanizing watersheds. 2nd GRSS/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas, 22-23 May 2003: 33-37.
- Alberti, M.**, A. Cohen, and E. Botsford. 2001. Quantifying the urban gradient: Linking urban planning and ecology. In J. M. Marzluff, R. Bowman, R. McGowan, R. Donnelly, Eds. *Avian Ecology in an Urbanizing World*. Kluwer, New York.
- Alberti, M.**, and P. Waddell. 1999. Developing an integrated urban development and ecological model. In P. Rizzi, Ed., *Computers in Urban Planning and Urban Management*. Franco Angeli, Milan.
- Alberti, M.** 1999. Urban form and ecosystem dynamics: Empirical evidence and practical implications. In M. Jenks, E. Burton, and K. Williams, Eds. *Achieving Sustainable Urban Form*. Routledge. London.

## Research Reports

- Alberti M., Wang, T., and M. Jung 2019. Carbon Urban Signatures Project Analysis Report. Urban Ecology Research Lab. University of Washington, Seattle. November 2019.
- Alberti M., Kang, M., Vaillant, P., and T. Wang. 2016. Urban Signatures Project Analysis Report. Urban Ecology Research Lab. University of Washington, Seattle. November 2016.
- Alberti, M. and M. Russo. Puget Sound Trends: A Synthesis of the Drivers Shaping the Future of our Waters. Urban Ecology Research Lab. University of Washington, September 2016.
- Patterson, M. and M. Alberti. 2016. The Microbiome of Seattle parks. Methodology. 2015-2016.
- Alberti, M. Russo, M and K. Tenneson. March 2013. Snohomish Basin 2060 Scenarios. Adapting to an Uncertain Future. Decision Support for Long Term Provision of Ecosystem Services in the Snohomish Basin, WA. Urban Ecology Research Laboratory, University of Washington, Seattle.
- Blanco, H. P.I., Co-PIs: J. Newell (U. Michigan), L. Stott (USC), M. Alberti (UW). 2012. *Water Supply Scarcity in Southern California: Assessing Water District Level Strategies*. Los Angeles, CA: Center for Sustainable Cities, Price School of Public Policy, University of Southern California.
- Alberti, M. and M. Marsik. 2010. *Land Cover Change Modeling*. Urban Ecology Lab.
- Alberti M. and D. Spirandelli. 2010. *Human Systems Modeling and Analysis for Puget Sound Ecosystem-Based Management*. PI: NOAA.
- Alberti M. et al. 2010. *Urban landscape patterns as emergent phenomena in Seattle and Phoenix*. National Science Foundation Biocomplexity (BCS 0508002).
- Alberti, M. and M. Russo. 2009. Puget Sound Future Scenarios. Urban Ecology Research Lab.
- Alberti et al 2006. Regional geographic initiative: land- scape Composition and Configuration at the Basin and Sub-Basin Level. Environmental Protection agency, Region 10. university of Washington.
- Alberti M. et al. 2006. *Integrated simulation model of urban development, land cover change and bird diversity*. National Science Foundation Biocomplexity
- Alberti M. and J. Hepinstall. 2006. Land Cover Change Model: Model Specifications and Application. King County, WA.
- Alberti M. and D. Spirandelli. 2006. Landscape Composition and Configuration at the Basin and Sub-Basin Level in Western Washington. Environmental Protection Agency, Region 10, WA.
- Alberti M., Coe, S. and J. Yan 2005. Operational Remote Sensing Solutions for Estimating Total Impervious Surface Areas and the Contribution to that Area Made by Transportation. Washington State Department of Transportation.
- Alberti, M., J. Hepinstall, Russo, M. and B. Coburn. 2005. CTED landscape Benchmarks Project. Washington State Commerce Trade and economic Development.
- Alberti M. and M. Bidwell. 2005. Assessing the Impacts of Urbanization on Shellfish Growing Areas in Puget Sound. Puget Sound Action Team, WA. Marina Alberti (PI), Elaine Faustman, Marcie Bidwell.

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2005. Integrated Framework of Urbanization, Nearshore and Human Health Interactions. Puget Sound Action Team, WA.
- Alberti M., Hepinstall, J., Russo, M. and B. Coburn. 2005. CTED Landscape Benchmarks Project. Trade and Community Development, WA.
- Alberti M. and., Coe, S., Yan, J, and R. Weeks 2005. A Hybrid Approach to Detecting Impervious Surface at Multiple Scales NOAA.
- Alberti M. Coe, S., D. Spirandelli, Yan Jang. 2005. Detecting Ecological Signatures of Development Patterns. Urban Ecology Research Lab. Seattle, WA.
- Alberti M., Booth, D., Hill, K. and J. Marzluff. 2002. The Impact of Urban Patterns on Ecosystem Dynamics. National Science Foundation, 1999-2002.

## SCHOLARSHIP

Director of the UW Urban Ecology Research Lab, an interdisciplinary team of faculty and students studying urban landscapes as hybrid phenomena that emerge from the interactions between human and ecological processes: <http://www.urbaneco.washington.edu/>

## Awarded Endowed Professorship

Marsha and Jay Glazer Endowed University Professorship, effective 2015-2020.

## National Award

Ecological Society of America. Sustainability Science Award 2019  
McPhearson, T., S.T.A. Pickett, N.R. Grimm, J. Niemela, M. Alberti, T. Elmqvist, C. Weber, D. Haase, J. Breuste, and S. Qureshi Advancing urban ecology towards a science of cities. *Bioscience*66: 198-212, doi:10.1093/biosci/biw002

## Awarded Grants

- NSF Research Coordination Network (RCN) Eco-Evolutionary Dynamics in an Urban Planet: Underlying Mechanisms and Ecosystem Feedbacks. PI: Marina Alberti. \$500,000. 10/01/17-09/30/22
- National Socio-Environmental Synthesis Center (SESYNC). Integrating Ecological Data into Investigations of Urban Scaling Effects. 2015-2016 PI: Marina Alberti.
- MacArthur Foundation Towards a Seattle Consortium for Urban Data Science. Co-PIs: Bill Howe, Marina Alberti, Ed Lazowska. \$300,000. 9/01/2014-8/31/2016.
- National Park Service (NPS). Identifying Spatial Metrics to Evaluate the Influence of Recreational Impacts on Ecosystems in Mount Rainier National Park. PI: Marina Alberti. 9/1/11-9/1/12. \$24,848.
- Haynes Foundation. Water Supply Scarcity in Southern California. PI: Hilda Blanco, (USC), Co-PI's: Josh Newell, L. Stott, M. Alberti. 7/1/10-6/12/12. \$ 217,117.
- Bullitt Foundation. *Snohomish Basin Scenarios for 2060*. PI: Marina Alberti, \$160, 000, 1 /1/2010-11/1/2013.
- University of Washington Bridge Funding. *Interactions and Feedbacks between Land Use, Land Cover, and Household Behavior: Implications for Urban Carbon Budget*. PI: Marina Alberti. 2011 – 2012. \$51,900.
- Bullitt Foundation. *Linking Urbanization and Vegetation Carbon Patterns*. PI: Marina Alberti. Co-PI Lucy Hutyra. \$14,410
- Weyerhaeuser Co. *Land Cover Change Modeling*. PI: Marina Alberti. 10/16/08-10/15/09. \$49,814
- NOAA. *Human Systems Modeling and Analysis for Puget Sound Ecosystem-Based Management*. PI: Marina Alberti. 1/1/08-12/31/08. \$44,843
- Environmental Protection Agency via King County Department of Natural Resources and Parks. *Regulatory Effectiveness Monitoring for Developing Rural Areas*. PI: Marina Alberti. 1/1/09 – 12/31/11. \$75,000

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- NSF. *Urban landscape patterns as emergent phenomena in Seattle and Phoenix*. PI: Marina Alberti. National Science Foundation Biocomplexity project, 2005-2009 (BCS 0508002). \$1,399,644
- NSF. *Urban Landscape Patterns: Complex Dynamics and Emergent Properties (Supplement)*. PI: Marina Alberti. National Science Foundation, 2007-2008 (BCS 741910). \$49,218
- NSF. *Integrated simulation model of urban development, land cover change and bird diversity*. PI: Marina Alberti, Co-PI's: Paul Waddell, John Marzluff, Mark Handcock. National Science Foundation Biocomplexity project, 2001-2006 (Alberti BCS-0120024), \$1,128,818
- Army Corps of Engineers. *Puget Scenarios. Future Without Project*. PI: Marina Alberti. Puget Sound Nearshore Ecosystem Restoration Program. \$48,330
- EPA. *Landscape Composition and Configuration at the Basin and Sub-Basin Level in Western Washington*. PI: Marina Alberti. Regional Geographic Initiative, Environmental Protection Agency, 2005-2006. \$40,981
- Washington State Department of Transportation. *Operational Remote Sensing Solutions for Estimating Total Impervious Surface Areas and the Contribution to that Area Made by Transportation*. PI: Marina Alberti. 2005. \$92,000
- NOAA/Washington Department of Ecology. *A Tiered-Scale GIS Analysis of Land Use Change and Shoreline Habitat Alteration*. PI: Marina Alberti., 2004-2005. \$75,000.
- Washington State Department of Community, Trade, and Economic Development. *Landsat Benchmark Project – Phase II (B)*. PI: Marina Alberti. 2004-2005. \$19,100
- Washington State Department of Community, Trade, and Economic Development. *Landsat Benchmark Project – Phase II (A)*. PI: Marina Alberti. 2003-2005. \$56,620
- Washington State Department of Community, Trade, and Economic Development. *Landsat Benchmark Project – Phase I*. PI: Marina Alberti. 5/1/2003-6/3/003. \$13,388.
- EPA Region 10/Puget Sound Action Team. *Regional Geographic Initiative*. PI: Marina Alberti, CoPI: Elaine Faustman., 2003-2005. \$74,400
- National Science Foundation and the National Institute for Environmental Health Sciences. *Pacific Northwest Center for Human Health and Ocean Studies*. PI Elaine Faustman, Co-PIs: Virginia Armbrust, Thomas Burbacher, Lucio Costa, Allan Devol, Clement Furlong, William Griffith, Si Simenstad. Project Leader: Marina Alberti. NSF: (OCE-0434087) NIEHS: (P50 ES012762). \$7,543,019
- NSF. *IGERT: Integrative Graduate Education in Urban Ecology*. PI: Gordon Bradley, Co-PI's: Marina Alberti, John Marzluff, Clare Ryan, Craig ZumBrunnen. 2001-2005 (N DGE-0114351). \$3,000,000
- NSF. *IGERT: Integrative Graduate Education in Urban Ecology*. PI: Gordon Bradley, Co-PI's: Marina Alberti, John Marzluff, Clare Ryan, Craig ZumBrunnen. 2001-2005 (International Supplement). \$1,274,000
- Puget Sound Action Team. *Assessing the Effects of Urbanization on Shellfish Growing Areas in Puget Sound*. PI: Marina Alberti. \$53,900.
- NSF. *The Impact of Urban Patterns on Ecosystem Dynamics*. PI: Marina Alberti, Co-PI's: Derek Booth, Kristina Hill, John Marzluff. 1999-2002. \$424,977
- University Initiative Fund (UW), Puget Sound Regional Synthesis Model (PRISM). *Development of an Integrated Urban Ecological Simulation Model for the Puget Sound*. PI: Marina Alberti. CO-PI's: Paul Waddell, Alan Borning. 1997-1999. \$214,909
- University of Washington. *UW Tools For Transformation: Urban Ecology Initiative*. PI: John Marzluff, Co-PI's: Marina Alberti, Gordon Bradley, Clare Ryan, Craig ZumBrunnen. 2000-2002. \$342,782.
- NSF. *Reusable Modeling Components for Simulating Land Use, Transportation, and Land Cover*. PI: Paul Waddell, Co-PI's: Marina Alberti, Alan Borning, Scott Rutherford. 1999-2001. \$439,357

### **Keynote Speeches, Lectures, and Selected Conferences (since 2008)**

- Alberti, M. 2020. Urban Resilience in an eco-evolutionary perspective. Invited Seminar University of California Los Angeles, Luskin School of Public Affairs. May 15, 2020. Postponed to

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- 2021 due to COVID 19.
- Alberti, M. 2019. Max Planck Society invited talk International Symposium “Geoanthropology – Comprehending the Human-Earth System” to be held on December 15-17, 2019. Berlin, Germany
- Alberti, M. 2019. Urban Sustainability in an eco-evolutionary perspective.” Keynote. The Next Urban Giants. The Next Urban Giants: Building Resilience and Equity into Growing Megapolitan Regions by Greening the Urban Human-Natural System. Washington State University. NSF-funded Sustainable Urban Systems workshop, July 30 - August 1, 2019, Seattle WA.
- Alberti, M. 2019. “Urbanism from an eco-evolutionary perspective.” Keynote. Second Symposium on Social-Ecological Urbanism: Balancing Dense and Green Urban Development. Chalmers University of Technology, Göteborg, Sweden, June 18, 2019.
- Alberti, M. 2019. “Eco-Evolutionary Dynamic in an Urban Planet.” Bromery Lecture, Earth & Planetary Sciences, John Hopkins University, Baltimore, April 25, 2019.
- Alberti, M. 2019. “Urban Eco-Evolutionary Dynamic of Biodiversity.” Biodiversity of Cities Symposium. University of North Caroline, April 26, 2019.
- Alberti, M. 2019. “Eco-evolutionary dynamics in an urbanizing planet.” Invited talk, British Ecological Society, Ecology Across Borders: Joint Annual Meeting. December 11-14, 2017.
- Alberti, M. 2017. “Synthesis in the City: Urban Evolutionary Ecology.” 19th New Phytologist Workshop. University of Toronto-Mississauga, Canada. July 27-30, 2017.
- Alberti, M. 2017. “Rethinking green infrastructure from an eco-evolutionary perspective.” Lecture, ESA: Interdisciplinary Perspectives on Environmental Performance and Socio-Ecological Function of Green Infrastructure. Portland, Oregon. August 9, 2017.
- Alberti, M. The Living City – Reimagining the commons for an ecology of prosperity. Keynote. The Woltz Symposium, November 11-12, 2016, University of Virginia. Charlottesville, VA.
- Alberti, M “Cities that Think Like Planets.” Keynote 2<sup>nd</sup> International Conference of Urban Ecology <http://2016surecongress.org/index.html>, Shanghai, China July 7-10, 2016.
- Alberti, M “Detecting Signatures of Socio-Ecological Innovation in Urbanizing Regions: Emerging Observations from Low Carbon Cities.” International Conference of Urban Ecology <http://2016surecongress.org/index.html>, Shanghai, China July 7-10, 2016.
- Alberti, M. “Building Cities That Think Like Planets.” Lecture. Lecture Series. Design School, Arizona State University, March 16, 2016. Tempe, AZ.
- Alberti, M. “Building regional sustainability in urban agglomerations: the history, present, and future 9<sup>th</sup>.” (Symposium co-organizer) IALE World Congress, Portland, July 5-10, 2015.
- Alberti, M. “Eco-evolutionary dynamics in urban landscapes: Emerging hypotheses and research strategies.” IALE World Congress, Portland, July 5-10, 2015.
- Alberti, M. “Critical Transitions, Resilience and Innovation in Hybrid Ecosystems.” IALE World Congress, Portland, July 5-10, 2015.
- Alberti, M. “Building Collective Intellectual Capacity in the Social Sciences.” Planning Meeting: Building Capacity For 21st Century Social Sciences. National Science Foundation. March 19-20, 2015, Washington, DC.
- Alberti, M. “Eco-evolutionary Dynamic in an Urbanizing Planet.” Keynote Speech. Urban Ecology & Conservation Symposium 2015. Portland February 6, 2015.
- Alberti, M. “Integration of land cover (LCCM), land use (URBANSIM), hydrology (DHSVM), and climate modeling (WRF), SESYNC Model Integration Workshop, Annapolis, MD. Jan 21-23, 2015.
- Alberti, M. “Resilience and Transformation in Hybrid Ecosystems.” ESA Annual Meeting. Sacramento, California. 2014
- Alberti, M. "The Science of Resilience" Urban Resilience in an Era of. Climate Change Symposium New York City October 18/19, 2013.
- Alberti, M. “Re-Framing Urban Ecology: Towards a Science of Cities as Hybrid Ecosystems.” Symposium on Methodological and theoretical approaches for dealing with socio-ecological



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- complexity of urban areas. International Society of Urban Ecology (SURE) Congress in Berlin on 25-27 July 2013
- Alberti, M. "Cities as Coupled Human-Natural Systems." Venice International University, Venice, Italy. March 12, 2013.
- Alberti, M. "Resilience in Urbanizing Ecosystems." Venice International University, Venice, Italy. March 12, 2013.
- Alberti, M. "Integrated Modeling in Urban Ecosystems." Venice International University, Venice, Italy. March 12, 2013.
- Alberti, M. "Planning Under Uncertainty." Venice University of Architecture, Department of Urban Planning, Venice, Italy. March 12, 2013.
- Alberti, M. "Resilience in Urban Ecosystems: Emerging Hypotheses and Scientific Challenges." UC Santa Barbara, February 7, 2013.
- Alberti, M. "Urban Forestry in the Greater Ecosystem." National Academy of Sciences, Washington D. C., Feb 25-26, 2013
- Alberti, M. "Resilient Patterns in Urban Ecosystems: Emerging Hypotheses and Implications for Planning" UC Berkeley, December 4, 2012.
- Alberti, M., Graumlich, L., Frumkin, H. and D. Friedman "Integrating Sustainability Science with the Sciences of Human Well-being to Inform Design and Planning in an Urbanizing World. American Geophysical Union, San Francisco, December 3, 2012.
- Alberti, M. Invited Speaker: Reinventing the City@MIT panel on "Urban Ecology and the City: How can Urban Ecologists Transform Cities?" MIT, Cambridge, MA. December 16, 2011.
- Alberti, M. Keynote Speech: "Ecological Resilience in Urbanizing Landscapes: Emerging Hypotheses and Implications for Wildlife Habitat Planning." International Urban Wildlife Management and Planning Conference, Austin, TX. May 22, 2011. <sup>[1]</sup><sub>SEP</sub>
- Alberti, M. Panel Address: "Resilient Patterns in Hybrid Ecosystems." Resilience Conference 2011: Resilience, Innovation, and Sustainability: Navigating the complexities of global change. Urban Resilience Symposium, Arizona State University.
- Alberti, M. Keynote Speech: "Urban Patterns and the Carbon Cycle: A Research Agenda for Sustainability Science", at the Joint Plenary of the International Human Dimensions Programme (IHDP) on Global Environmental Change - the Urbanization and Global Environmental Change (UGEC) Project and the Global Land Project (GLP).
- Alberti, M. Invited Lecture UW Center for Statistics and Social Sciences: "Urban Patterns and Carbon Dynamics: Emerging Hypotheses and Research Strategies." May 25, 2011.
- Alberti, M. Invited Lecture UW Civil & Environmental Engineering Department. "Resilience of Urbanizing Ecosystems: Emerging Hypotheses and Scientific Challenges." May 12, 2011.
- Alberti, M. Invited lecture USC Center for Sustainable Cities. "Planning for Urban Resilience." March 7, 2011.
- Alberti, M. Invited Lecture: USC, SPPD. Urban Growth Seminars. "Urban Patterns and Carbon Dynamics." February 8, 2011.
- Alberti, M. Invited Lecture MIT-USGS Impact Collaborative. "Planning for Resilience through Scenario Planning." Dec 3, 2010.
- Alberti, M. Invited Lecture, MIT Environmental Policy Group, DUSP. "Urban Patterns and Carbon Dynamics: Emerging Hypotheses and Research Strategies." November 30, 2010.
- Alberti, M. "Detecting Carbon Signatures of Development Patterns across a Gradient of Urbanization: Linking Observations, Models, and Scenarios." Urban Research Symposium 2009 on Cities and Climate Change: Responding to an Urgent Agenda, Marseille, France, June 28-30, 2009.
- Alberti, M. and L. Hutyrá. "Detecting carbon signatures of development patterns across a gradient of urbanization: Linking observations, models, and scenarios." Urban Research Symposium 2009, Cities and Climate Change: Responding to an Urgent Agenda, Marseille, France, June 28-30, 2009.
- Alberti, M. and L. Hutyrá. Workshop on Land Use/Land Cover Change and the Carbon Cycle. University of Michigan Ann Arbor, Michigan.

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Alberti, M. "Urbanization patterns and carbon fluxes: A coupled human-natural system approach to study process and mechanisms." US-International Association for Landscape Ecology (IALE) symposium on Coupling Humans and Complex Ecological Landscapes, Salt Lake City, UT, April 10-14, 2009.

Alberti, M. "Criticality and resilience in urban ecosystems." Keynote speech at Resilience 2008 conference: Resilience, Adaptation and Transformation in Turbulent Times. Stockholm, Sweden, April 14-17, 2008.

Hutyra, L. and M. Alberti. "Discontinuities, criticality, and resilience in urban landscapes." US-International Association for Landscape Ecology (IALE) Symposium, Madison, Wisconsin, April 6-8, 2008.

## Recent Scientific Committees & Advisory Boards

UW Center for Health and the Global Environment (CHanGE) Advisory Board 2017-

University of Washington, Earth Lab Steering Committee 2016-

University of Washington, Urban@UW Steering Committee 2015-

National Socio-Environmental Synthesis Center (SESYNC). Science Advisory Committee. 2014-Present.

MIT-Tufts RCN Steering Committee. Water Diplomacy Research Network. Project funded by the National Research Foundation 2011-2016.

## Journal Editorial Boards

Specialty Chief Editor, *Urban Science*, Frontiers in Built Environment. Frontiers. New Journal Effective Jan 2017.

Associated Editor, *Urban Ecology*, Frontiers in Ecology and Evolution. Frontiers. 2015-

Associate Editor, *Sustainability Transitions*, Elementa 2015-

Editorial Board Member, *Computer, Environment, and Urban Systems*, Elsevier 2013-

## Collaborators

Marty Anderies (Human Evolution and Social Change, ASU), Luis Bettencourt (Santa Fe Institute), Alan Borning (Computer Science, UW), Hilda Blanco (Urban Planning, USC), Gordon Bradley (Forest Resources, UW), Howie Frumkin (Public Health, UW), Elaine Faustman (Environmental Health, UW), Adrienne Greve (City and Regional Planning, Cal Poly), Nancy Grimm (Life Sciences, ASU), Alan Hamlet (Civil and Environmental Engineering, UW), Mark Handcock (Statistics, UCLA), Andrew Hendry (McGill University), Jeff Hepinstall (Landscape Ecology, U of Georgia), Radley Horton (Earth Sciences, Columbia) Lucy Hutyra (Urban Ecology, UW), Shafiqul Islam (Civil and Environmental Engineering, Tufts), Marc Johnson (University of Toronto), David Layton (Public Affairs, Adam Leach (Univ. of Washington).UW), Dennis Lettenmaier (Civil Engineering, UCLA), Jianguo Liu (Fisheries & Wildlife, Michigan State), John Marzluff (Wildlife Ecology, UW), Dan Mazmanian (USC), Scott Miles (Environmental Studies, Western Washington U), Debashis Mondal (Statistics, UoC), Anne Vernez Moudon (UDP, UW), Eric Palkovacs (UC Santa Cruz), Diane Pataki (University of Utah), Chuck Redman (Anthropology, ASU), Cynthia Rosenzweig, (NASA/GISS), Mary Ruckelshaus (NOAA), Jennifer Ruesink (Biology, UW), Scott Rutherford (Civil & Environmental Engineering, UW), Clare Ryan (Forest Resources, UW), Christopher Sabine (Oceanography, UW), Eric Salathé (Climate Impact Group, UW). Amy Snover (Climate Impact Group, UW), Si Simenstad (Aquatic & Fisheries, UW), William Solecki (Institute of Sustainability, CUNY), Lawrence Susskind (DUSP, MIT), Josh Tewksbury (Biology, UW), Mark Urban (University of Connecticut), Paul Waddell (City & Regional Planning, UC Berkeley), Geoffrey West (Santa Fe Institute), Jingle Wu (Evolutionary Ecology, ASU).

## Graduate and Postdoctoral Advisors

Lawrence Susskind (MIT: Ph.D.) Paul Ehrlich (Stanford: postdoctoral)

*Thesis Advisees and Postgraduate-Scholars*

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**Postdocs:** Simone Des Roches, Jeff Hepinstall, Lucy Hutyra, Matt Lambert, Elisabeth Larson, Matthew Marsik, Scott Miles, Steven Walters.

**Doctoral students:** Karen Dyson, Tracy Fuentes, Adrienne Greve, Dorian Antonio Bautista Hernández, David Hsu, Yan Jiang, Meenchel Jang, Michelle Kondo, Yuqi Li, Julia Michalak, Ahmed Al-Noubani, Barbara Rodriguez, Matt Patterson, Emma Solanki, Daniele Spirandelli, Karis Tenneson, Vivek Shandas, J. D. Tovey, Philippe Valliant, Tianzhe Wang.

**Master's students:** Ashley Marie Benni, Erik Botsford, Christiana Carr, Stefan Coe, Alex Cohen, Peter Dobrovolny, Sydney Elmer, Philip Hartigan, Angelique Hocket, Joshua Hoff, Michelle Kondo, Japhet Koteen, Tammy Kutzmark, Miranda Maupin, Lauren Moore, Peter Noonan, Aaron Raymond, Belen Roca, Jackson Koch, Michal Russo, Karis Tenneson, Sarah Titcomb, John Walsh, Scott Williamson, Mary Xiao.