

Curriculum Vitae Julia L. Michalak

PERSONAL DATA

Office University of Washington College of Built Environments
Department of Urban Design & Planning
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EDUCATION

Ph. D. Candidate Interdisciplinary Urban Planning and Design Feb 2010 to Present
University of Washington, Seattle, WA Committee Chair: Dr. Marina Alberti
(Expected Defense – July 2013)

M. S. Sustainable Development and Conservation Biology May 2006
University of Maryland, College Park, MD

B. A. Biology, Carleton College, Northfield, MN, *magna cum laude* June 2000

RESEARCH INTERESTS

Urban Ecology, Landscape Ecology, Conservation Planning, Climate Change Adaptation Planning

Effects of urban patterns on ecological structure and function

Ecological land use planning policy and process

RESEARCH AND PROFESSIONAL EXPERIENCE

Dissertation Research, *University of Washington, 2007-present*

- Compared oak (*Quercus garryana*) woodland forest composition and structure across a gradient of urbanization in the South Puget Sound to understand the implications of urban development for oak regeneration patterns
- Used experimental field techniques to evaluate acorn removal, predation and germination in urban and non-urban sites.
- Marked and relocated individual acorns to evaluate effects of landscape and site structure on acorn dispersal processes (distance and cache location characteristics).

Graduate Research Assistant, *Dr Joshua Lawler's Landscape Ecology and Conservation Lab, UW, Seattle WA. 6/11-present*

- Used cluster analysis in R to identify land facets (unique geophysical areas of the landscape) in sample landscapes throughout the Pacific Northwest.
- Assisted with development of research methods for testing the effectiveness of land facets as conservation targets for strategic planning under climate change.
- Planned and organized Climate Adaptation Workshops with land management groups in four complex landscapes throughout the Pacific Northwest. Workshop objectives are to share and communicate available climate change data with land managers and assist with incorporating climate data and knowledge into land management decision-making.

Graduate Research Assistant, UW Urban Ecology Research Lab and King County DNR, Seattle, WA. 1/09 – 9/10

- Reconstructed land-cover change over approximately 100 years to inform an assessment the effectiveness of the King County Critical Areas Ordinance.
- Georeferenced and interpreted historical aerial photos and maps dating from 1900 to 1965.
- Used Idrisi software to conduct a land-cover change analysis.
- Assisted with development of future land-cover scenarios using the University of Washington Urban Ecology Lab's high resolution (30 meter cell) Land-Cover Change Model and integrated urban simulation (UrbanSim) model.

Conservation Planning Associate, Defenders of Wildlife, Washington DC. 6/06-8/07

- Conducted policy research to facilitate implementation of the State Wildlife Action Plans. Researched and developed reports on the connection between the State Wildlife Action Plans and land use and transportation planning.
- Compiled annotated bibliography of conservation planning and related land use planning literature.
- Researched and developed proposal to create a Cooperative Conservation Blueprint for Florida in cooperation with Florida Fish and Wildlife Commission and the Century Commission for a Sustainable Florida.

Consultant, Worcester County Planning Department, MD. 9/05-12/05

- Identified priority green infrastructure hubs in Worcester County, MD using GIS data developed for the Maryland Green Infrastructure Assessment and additional species element occurrences.
- Developed a set of recommendations for land use planning policies to protect green infrastructure in Worcester County.
- Presented findings and recommendations to the Worcester County Planning Commission and the Coastal Bays Working Group resulting in the inclusion of green infrastructure in the County comprehensive plan.

Conservation Planning Intern, Defenders of Wildlife, Washington DC. 6/05-6/06

- Assisted with review, comments, and analysis of the State Wildlife Action Plans.

Stream Ecologist, Tulalip Tribes Department of the Environment. WA 2/01-4/02

- Performed local assessment of riparian condition and restoration potential in the Skykomish floodplain using digital ortho-rectified aerial photos and GIS software.
- Authored report investigating riparian restoration project location and methods in Western Washington.
- Authored successful grant requests to the EPA resulting in \$200,000 in funding.
- Created and managed multiple project budgets, authored quarterly and final reports.

TEACHING INTERESTS

Ecological Planning, Urban Ecology, Geographic Information Systems, Landscape Ecology, Conservation Planning

TEACHING EXPERIENCE

Invited Guest Lecture, University of Washington, Spring 2012

Urban Ecology: Conducting and Communicating Science in the City (BIOL 497A)

- Landscape Ecology and Conservation Planning in Urbanizing Regions

Instructor, University of Washington, winter 2012

Environmental Response (CEP 302)

- Required undergraduate course for Community, Environment, and Planning (CEP) program focusing on knowledge of and response to environmental issues in planning
- Course focus on Climate Change Adaptation Planning as a case study
- Fully responsible for all aspects of course development
- Developed and presented lectures and GIS exercises

Graduate Teaching Assistant, University of Washington, spring 2011

Urban and Regional Geospatial Analysis (UDP422)

- Supervised GIS lab exercises with 25 students
- Updated and graded lab exercises, mid-term and final exams
- Assisted students with project development and implementation

Invited Guest Lecturer, University of Washington, spring 2011

Geographic Information Systems (CFR 520)

- Discussed GIS tools for mapping focal wildlife conservation areas and connectivity corridors

Associate Instructor, University of Washington, winter 2011

Ecological Land Use Planning (UDP598p)

- Interdisciplinary Master's level course integrating urban ecology, ecological planning and land use planning.

- Fully responsible for all aspects of course development with mentorship from Dr. Joshua Lawler (UW, School of Forest Resources)
- Developed and presented five lectures and GIS lab exercise materials
- Managed class project to develop a wildlife connectivity plan for King County, WA in coordination with King County Natural Resources Department

Huckabay Teaching Fellow, University of Washington, fall 2010

- Proposed and developed an interdisciplinary, project-based, graduate course in Ecological Land Use Planning with mentorship from Dr. Joshua Lawler (UW, School of Forest Resources) and Dr. Ken Yocom (UW, Landscape Architecture).
- Content focus of the class was to understand the effects of urban and landscape patterns on ecosystem structure and function as well as explore policies that can alleviate negative impacts. The class was constructed around a core project using GIS analysis tools (including Circuitscape and Linkage Mapper) to identify areas of connectivity for selected focal species.

Graduate Teaching Assistant, University of Maryland, 2005-2006

Plant Biology for Non-Science Majors

- Three semesters, two lab sections of 20 students per quarter
- Supervised lab activity, graded lab exercises and papers

Graduate Teaching Assistant, University of Maryland, fall 2004

Introductory Biology

- Assisted professor with coordinating lectures, exams, grading and student tutoring

Teaching assistant, Carleton College, winter 2004

Biology Study Abroad Australia/New Zealand/Cook Islands

- Assisted professor with logistics, planning, and student supervision
- Assisted students in field research project development and execution

FELLOWSHIPS AND AWARDS

7/2011	Urban Ecosystem Ecology Section Travel Award, to attend the Ecological Society of America 2011 annual meeting.
7/2011	Graduate School Fund for Excellence and Innovation Graduate Student Travel Award (University of Washington)
2010	Huckabay Teaching Fellow (University of Washington)
2009-2010	Urban Design and Planning Outstanding PhD Student Award (University of Washington) – One award granted per year

- 9/2010 Graduate School Fund for Excellence and Innovation Graduate Student Travel Award (University of Washington)
- 2/2010 Graduate School Fund for Excellence and Innovation Graduate Student Travel Award (University of Washington)
- 2/2010 Emerging Issues along Urban-Rural Interfaces Conference Travel Grant
- 5/2009 National Science Foundation Graduate Research Fellowship, *Honorable Mention*
- 2007-08 Hall Ammerer-WRF Graduate Fellow (University of Washington)
- 2004-05 Tati Sugardjito Graduate Fellow (University of Maryland)

PUBLICATIONS, REPORTS AND PRESENTATIONS

Peer-Reviewed Publications

Michalak, J. 2011. Effects of habitat and landscape structure on Oregon white oak (*Quercus garryana*) regeneration across an urban gradient. *Northwest Science* 85:182-193.

Michalak, J. and J. Lerner. 2008. Linking Conservation and Land Use Planning: Using the State Wildlife Action Plans to protect wildlife from urbanization *in* Transportation land-use planning, and air quality: proceedings of the 2007 Transportation Land-Use Planning, and Air Quality Conference: July 9-11, 2007, Orlando, Florida.

Published Reports

White, P., **J. Michalak**, and J. Lerner. 2007. Linking Conservation and Transportation Planning: Using the State Wildlife Plans to protect wildlife from road impacts. Defenders of Wildlife, Washington DC.

Michalak, J. and J. Lerner. 2007. Linking Conservation and Land Use Planning: Using the State Wildlife Action Plans to protect wildlife from urbanization. Defenders of Wildlife, Washington DC.

Lerner, J, B. Cochran, and **J. Michalak**. 2006. Conservation across the landscape: A review of the State Wildlife Action Plans. Defenders of Wildlife, Washington DC.

Paper Presentations

Michalak, J. "Effects of urban development and forest cover patterns on Garry oak (*Quercus garryana*) acorn dispersal processes." August 2011. Ecological Society of America Annual Meeting, Austin, TX.

- Michalak, J.** “Effects of Landscape Pattern on Oak Dispersal and Regeneration in an Urban Landscape.” April 2011. U.S. International Association for Landscape Ecology (US-IALE) symposium, Portland, OR.
- Michalak, J.** “Effects of Landscape Pattern on Oak Dispersal and Regeneration in an Urban Landscape.” December 2010. A Conference on Ecosystem Services (ACES), Phoenix, AZ.
- Michalak, J.** “Developing the Historical Context for Understanding Present Day Land Use-Water Quality Relationships.” February 2010. Water Center Annual Review of Research, Seattle, WA.
- Michalak, J.** “Developing the Historical Context for Understanding Present Day Land Use-Water Quality Relationships.” October 2009. King County Fall Science Seminar, Seattle, WA.
- Michalak, J.** and J. Lerner. “Linking Conservation and Land Use Planning: Using the State Wildlife Action Plans to protect wildlife from urbanization.” July 2007. Transportation Land-Use Planning, and Air Quality Conference, Orlando, FL.
- Michalak, J.,** White, P., J. Feinberg, and J. Lerner. “Unanimous! What the State Wildlife Action Plans have to say about transportation and wildlife.” May 2007, International Conference on Ecology and Transportation (ICOET), Little Rock, AR.
- Michalak, J.** and J. Lerner. “State Wildlife Action Plans: exploring a new conservation resource for land use planners.” April 2007. Emerging issues along Urban/Rural Interfaces: linking land-use science and society, Atlanta, GA.
- Michalak, J.** and J. Lerner. “State Wildlife Action Plans: exploring a new conservation resource for land use planners.” April 2007. American Planning Association National Planning Conference, Philadelphia, PA.
- Michalak, J.,** A. Carlson, and D. Coelho. “Green Infrastructure Planning in Worcester County: Planning for conservation at the local level.” April 2007. Duke Student Conference on Conservation Science, Durham, NC. *Received Honorable Mention.*

Poster Presentations

- Michalak, J.** “Conservation planning in the classroom: applying project-based pedagogy to promote interdisciplinary learning.” August 2011. Ecological Society of America Annual Meeting, Austin, TX.
- Michalak, J.** “Effects of urban development on Garry Oak (*Quercus garryana*) acorn dispersal processes.” March 2010. Cascadia Prairie-Oak Partnership & Northwest Science Joint Meeting, Centralia, WA.

Michalak, J. “Effects of urban development on Garry Oak (*Quercus garryana*) acorn dispersal processes.” April 2010. Emerging Issues along Urban-Rural Interfaces, Atlanta, GA.

Interests Outside Academia

Hiking, backpacking, cooking, birdwatching