Marina Alberti  
lab director, phd director, professor  
My research aims to understand the dynamics of cities as hybrid ecosystems. I am interested in the emergent properties of urbanizing regions resulting from the interaction between human and natural processes. I am particularly interested in understanding the complex mechanisms that control their resilience and innovation. Through empirical studies, simulation modeling, and scenario planning my research team collectively address four questions:  
1. What interactions and mechanisms control urban ecosystem dynamics?  
2. What qualities of urban ecosystems facilitate adaptation to unexpected change?  
3. What elements generate opportunities for innovation towards resilience?  
4. What are the implications of this knowledge for urban design and planning?

Julia Michalak  
phd candidate  
My current dissertation research investigates whether regeneration patterns and processes differ in urban versus non-urban landscapes, with a particular emphasis on regeneration stages controlled by animal communities. Specifically, I have investigated regeneration patterns by documenting the distribution and abundance of oak seedlings and saplings across an urban gradient, and differences in regeneration processes including acorn predation, dispersal, and germination between urban and non-urban oak woodlands.

Mary Roderick  
phd student  
While broadly interested in the synthetic nature of social and ecological systems, she is specifically focused on urban ecology. My current research specifically addresses conservation opportunities and bird diversity on commercial land and focuses on four main questions:  
1. What species live on commercial land? This includes office parks, corporate campuses, and other facilities zoned commercial or light industrial.  
2. What landscape and/or other variables impact bird diversity on commercial land?  
3. What conservation techniques are used on commercial land?  
4. Why are managers motivated to use conservation friendly landscaping practices? These include conservation adoption and use preferences.

Karis Tenneson  
phd candidate  
In coupled human-natural systems, vegetation simultaneously provides ecological function (i.e., carbon storage, water control and heat regulation) and human services (microclimate regulation, reduction of stormwater runoff). However plants and their communities are significantly altered by urbanization as development transforms and fragments natural cover and community composition, forest structure, such as plant community composition, and tree management alters community composition and looking into the neighborhood parcel characteristics, which turn out to be important in landscape classifi cation. Currently, I am working on land cover classification accuracy assessment derived from LANDSAT TM time series data. I am a 5th year Ph.D from China, I have a BS in Environmental Science and a BS in Landscape Ecology.

Jennie Partenen  
phd student  
We are interested in understanding how different decision makers, at various scales, conceptualize urban ecosystems and how those partial worldviews come together to shape the emergent properties of urban ecosystems (i.e., behavior, policy). I am broadly motivated by diversity, resilience, uncertainty and creativity.

Danielle Spirandelli  
phd candidate  
My research interests involve three broad questions:  
1. What is known about the relationships between urban vegetation and urban ecosystem function, ecological integrity and human well-being in nearshore environments?  
2. What is the relative importance of hard use, land cover, and wastewater infrastructure for nearshore conditions and the associated environmental health?  
3. When examining health risks that are elusive and mostly hidden from human management such as non-point source pollution, are principles of complexity theory transformative to the contemporary risk assessment framework?

J.D. Tovey  
phd student  
My research interest is in the long term cycles of recovery by studying historical indigenous villages in the Columbia River Estuaries. Knowledge and how that long term knowledge can be utilized for contemporary near-dry trajectories of development. My motivation for this research is partially influenced by my own background of growing up in a small farming community as well as being an enrolled member of the Coos and Joseph Band Trade People of Northeastern Oregon. I grew up seeing the disproportionate impact of development on small towns and its cultural and agricultural base as opposed to larger urban areas and truly believe that the flip side of improving the world’s cities is to improve their surrounding rural areas.

Yan Jiang  
phd candidate  
To apply GIS, remote sensing techniques and my statistical knowledge in landscape ecology research is now a new focus of my interest. I am using GIS and remote sensing analysis to predict parcel land development types by creating a binary classification model that distinguishes developed and preserved lands and looking into the neighborhood parcel characteristics, which turn out to be important in landscape classification. Currently, I am working on land cover classification accuracy assessment derived from LANDSAT TM time series data. I am a 5th year Ph.D from China, I have a BS in Environmental Science and a BS in Landscape Ecology.

Karen Dyson  
phd student  
Two objectives drive my research—conversing biodiversity in urbanizing and human dominated landscapes, and re-connecting people to nature. My current research specifically addresses conservation opportunities and bird diversity on commercial land and focuses on four main questions:  
1. What species live on commercial land? This includes office parks, corporate campuses, and other facilities zoned commercial or light industrial.  
2. What landscape and/or other variables impact bird diversity on commercial land?  
3. What conservation techniques are used on commercial land?  
4. Why are managers motivated to use conservation friendly landscaping practices? These include conservation adoption and use preferences.

Bobak Talebi  
masters student  
Bobak is completing a concurrent Masters degree in Urban Design and Planning, and Marine and Environmental Affairs. Prior to his matriculation at the University of Washington, he has worked in land use and shoreline planning for local and state agencies, in addition to his most recent experience with the San Francisco Bay National Estuarine Research Reserve Coastal Training Program. Bobak currently focuses on addressing the impacts of climate change, and is working with NGO’s in Washington State to implement community based projects.

Jesse Sayles  
phd student  
Who do we want our world to be? What is the consequence of that? At a meta-level, these questions drive me. I explore them through environmental restoration, which I approach in a unique manner. We measure the loss of opportunities once held in our landscapes and these opportunities are what we seek to restore. Seen like this, human society and culture become part of restoration. This view also makes restoration forward looking and part of adaptation. To better know our world, try to learn from, and integrate, different human-environment traditions; including geography, sustainability, resilience, and urban ecology.

Maria Sandercock  
masters student  
I am working towards two Masters degrees at UW — a Master of Science in the School of Environmental and Forest Resources and a Master of Urban Planning in the College of the Built Environment. My research is focusing on the role of different patterns of urban development and infrastructure on stream health (as measured by the benthic index of biotic integrity).