

Leibniz-Institut für ökologische Raumentwicklung

Dresdner Planerforum

Managing Forests for Change in an Uncertain Future

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Forest change is continuous and ever-present. Projected future alterations to the fundamental determinants of forest composition and structure will, however, present large challenges to forest management and contains large uncertainty. Climate change, in particular, is fundamentally different than other drivers of change. Many human effects on natural systems are ephemeral or reversible and can be actively or passively restored over time. Climate change will be neither ephemeral nor reversible. Current projections are for substantial warming by the end of this century. As a result, climate change will push forested landscapes into novel states from which they will never return and will generate a 'no-analog' future. But these changes will be shaped and guided by forest management. What role can forest management play in shaping the trajectories of forested landscapes? What management strategies will be reasonable and effective? When and where should they be deployed? And how can uncertainty be embraced and incorporated into forward-looking management plans? Such information is critical in an era of declining resources and amplifying change, when difficult choices about which which systems to save or protect must be made. Dr. Scheller will present his framework for understanding management under change and uncertainty and will present his research on incorporating climate uncertainty into forest management actions.

Dr. Robert M. Scheller grew up in Minnesota and received his B.S. in Biology from the University of Minnesota and Masters and Doctoral degrees in Forest Ecology from the University of Wisconsin. He is an Associate Professor at Portland State University and the Director of the Dynamic Ecosystems and Landscapes Lab. He is currently on sabbatical at Harvard University. His research focuses on forest landscape change: how forests have changed, how they will change, and why it matters. Specifically, his research examines how forest management and natural disturbances generate or reduce resilience, specifically in regards to climate change. Resilience can be expressed in many ways; Robert focuses on biological resilience (plant and animal abundance on the landscape), functional resilience (carbon dynamics, ecosystem processes, and broad-scale disturbance regimes), and spatial resilience (the spatial distribution of biological and functional components). His research employs environmental modeling, remote sensing, multivariate and spatial statistics, and field data collection. He has published more than 50 manuscripts and book chapters. Outside of his academic endeavors, he enjoys the natural wonders of the Pacific Northwest and the cultural wonders of Portland, Oregon.

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Veranstaltungsort:

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Koordination

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