

**Title** Research Ecologist (USFS)  
Affiliate Faculty (OSU)

**First Name** Rebecca 10/17/2007

**Middle Name** S. H. **Permission date**

**Last Name** Kennedy **Photo**

**Institution** USFS, OSU

**Department** Ecosystem Processes Program (USFS)  
Forest Science (OSU)

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### Research Fields

- Atmospheric chemistry
- Biogeochemistry
- Carbon Footprint Analysis
- Climatology
- Community & Disaster Planning
- Data Analysis & Statistical Modeling
- Ecology & Ecosystem Management
- Economics
- Energy policy & technology
- Ethics
- Fire
- Forestry & Forest Management
- Geographic Information Systems
- Horticulture
- Human Impacts - economics
- Human Impacts - health
- Human Impacts - policy
- Hydrology
- Impacts - agriculture & horticulture
- Impacts - ecosystems, populations
- Impacts - physical
- Instrumentation
- Mitigation Policy
- Modeling Climate
- Modeling Ecosystems
- Modeling Socioeconomic Processes
- Natural Resource Policy & Planning
- Outreach & Engagement
- Paleoclimatology
- Paleoecology
- Physical Ecology
- Physiological Ecology
- Urban Ecology
- Water Policy & Planning
- Other...

### Specific Research Interests

Incorporation of climate change information into local to landscape fire and vegetation models

Assessment of fire risk (low, moderate, high severity fire) and implications to vegetation patterns and biodiversity

Downscaling of climate information for use in evaluating vegetation patterns and trends at meso-scales such as landscapes and regions

Dead wood assessment and modeling and implications to biodiversity and carbon stores

Evaluation of relative influences of management and climate change to fuels, vegetation cover and structure, biomass and carbon, in Pacific Northwest landscapes

Development and implementation of a nationwide gap and fire model that incorporates climate effects

Land cover change in relation to disturbance and land-use history, climate change, and management

Landscape fire succession modeling

## **Projects**

Incorporation of climate change information into local to landscape fire and vegetation models  
Assessment of fire risk (low, moderate, high severity fire) and implications to vegetation patterns and biodiversity  
Downscaling of climate information for use in evaluating vegetation patterns and trends at meso-scales such as landscapes and regions  
Dead wood assessment and modeling and implications to biodiversity and carbon stores  
Evaluation of relative influences of management and climate change to fuels, vegetation cover and structure, biomass and carbon, in Pacific Northwest landscapes  
Development and implementation of a nationwide gap and fire model that incorporates climate effects  
Land cover change in relation to disturbance and land-use history, climate change, and management  
Landscape fire succession modeling

## **Selected Recent Publications**

Kennedy, Rebecca S.H., Thomas A. Spies and Matthew J. Gregory. In Press. Relationships of dead wood patterns with biophysical characteristics and ownership according to scale in Coastal Oregon, USA. *Landscape Ecology*.

Wimberly, M.C. and Rebecca S.H. Kennedy. In Press. Spatially Explicit Modeling of Mixed-Severity Fire Regimes and Landscape Dynamics in the Interior Pacific Northwest. *Forest Ecology and Management*.

Kennedy, R.S.H. and Spies T.A. 2007. An assessment of dead wood patterns and their relationships with biophysical characteristics in coastal Oregon (USA). *Canadian Journal of Forest Research* 37: 940-956.

Spies Thomas A., McComb Brenda C., Kennedy Rebecca S.H. McGrath Michael, Olsen Keith A. and Pabst Robert J. 2007. Potential effects of forest policies on terrestrial biodiversity in a multi-ownership province. *Ecological Applications* 17: 48-65.

Kennedy, Rebecca S.H. and Thomas A. Spies. 2005. Dynamics of hardwood patches in a conifer matrix: 54 years of change in a forested landscape in Coastal Oregon, USA. *Biological Conservation* 122: 363-374.

Kennedy, Rebecca S.H. and Thomas A. Spies. 2004. Forest cover changes in the Oregon Coast Range from 1939 to 1993. *Forest Ecology and Management* 200: 129-147.

## **Professional Activities**

US Chapter of the International Association for Landscape Ecology, member, and website coordinator

Ecological Society of America, member

Society for Conservation Biology, member

Association for Fire Ecology, member

Regional Coordinator for Central Cascades Climate Change Case Study Assessment, one of three regional

assessments under the USFS Pacific Northwest, Pacific Southwest, and Rocky Mountain research station  
West-wide Climate Change Initiative