

## **Scott D. Peckham**

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### **EDUCATION**

*M.S. in Environmental Monitoring, University of Wisconsin-Madison (2003-2005), with Dr. Thomas M. Lillesand (Civil and Environmental Engineering, Forest Ecology and Management):* “Detection of Spatial and Temporal Trends in Wisconsin Lake Water Clarity using Landsat-derived Estimates of Secchi Depth.” GPA: 3.93 out of 4.0.

*B.S. in Electrical and Computer Engineering, University of Wisconsin-Madison (1997-2001).* GPA: 3.88 out of 4.0. Graduated Magna Cum Laude.

### **CURRENT RESEARCH INTERESTS**

Remote sensing, image processing, and integration of multi-scale, multi-source spatial data for forest ecosystem modeling with emphasis on efficient data processing algorithms. Modeling the impacts of fire, climate, and harvest on biogeochemical cycling in boreal and temperate forests. Coupling field data and ground-measured spectral reflectance of vegetation and water bodies with satellite data. Phenology estimating and bryophyte cover quantification using remote sensing.

### **HONORS AND AWARDS**

*Distinctive Scholastic Achievement, UW-Madison (2001)*  
*Charles G. Gunderson Scholarship, UW-Madison (2001)*  
*Academic Scholarship, Colorado State University (1996)*

### **PROFESSIONAL EXPERIENCE**

*Senior Research Specialist (2005-present), University of Wisconsin-Madison, Madison, WI.* Image processing and analysis, statistical programming, and algorithm development to support current research efforts in boreal and temperate ecosystems. Data management and software development for spatially-explicit ecosystem process modeling.

*Graduate Project Assistant (2003-2005), University of Wisconsin-Madison, Madison, WI.* Modeling water quality and clarity using satellite imagery, spatial and temporal trend analysis of historic satellite-derived water clarity data. Database development and management using ArcGIS.

*Teaching Assistant (2004), University of Wisconsin-Madison, Madison, WI.* Introduction to Aerial Photographic Systems, Electro-optical and Microwave Remote Sensing.

*Instrumentation and Controls Engineer* (2002-2003), Affiliated Engineers Inc., Madison, WI. Instrumentation and electronic design for transmission test cells, design of PLC-based process control systems, control system design for building HVAC systems.

*Project Engineer* (1999-2001), Affiliated Construction Services, Madison, WI. Assistant site engineer for new manufacturing plant, construction of PLC panels for automated test equipment.

*Technician/Undergraduate Research Assistant* (2000), University of Wisconsin-Madison, Madison, WI. Installation and maintenance of forest research sites, troubleshooting and installing electronics, data logger programming.

### **PUBLICATIONS IN REFEREED JOURNALS**

Peckham, Ahl, Serbin, and Gower (2008). Fire-induced changes in start of growing season and leaf maturity in the Canadian boreal forest, *Remote Sensing of Environment*, 112, 3594-3603.

Bond-Lamberty, Peckham, Ahl, and Gower (2007). The dominance of fire in determining carbon balance of the central Canadian boreal forest, *Nature*, 450, 89-92.

Peckham, Chipman, Lillesand, and Dodson (2006). Alternate stable states and the shape of the lake trophic distribution, *Hydrobiologia* 571 (1): 401-407.

Peckham and Lillesand (2006). Detection of spatial and temporal trends in Wisconsin lake water clarity using satellite-derived estimates of Secchi depth, *Lake and Reservoir Management*, 22 (4): 331-341.

Bond-Lamberty, Peckham, Gower, and Ewers (2008). Effects of fire on regional evapotranspiration in the central Canadian boreal forest. *Global Change Biology*. (In press)

Peckham, Ahl, and Gower (2008). Bryophyte cover estimation in a boreal black spruce forest using airborne lidar and multispectral sensors. *Remote Sensing of Environment*. (Under revision)

### **PRESENTATIONS AT CONFERENCES AND WORKSHOPS**

Peckham, Ahl, Gower, and Serbin. Assessing the significance of fire in temporal NDVI trends derived from AVHRR data in Canada. Workshop: *Global Vegetation Monitoring*, August 7-10. NTSG, University of Montana, Missoula, MT. (Poster)

Ahl, White, Gower, Bond-Lamberty, Helmers, and Peckham. Spatial biological and industrial carbon budgets for northern Wisconsin. Workshop: *Climate Science in Support of Decision Making*, November 14-16, 2005. Arlington, VA. (Poster)

Peckham. Detection of spatial and temporal trends in Wisconsin's lake water clarity. Conference: *North American Lake Management Society*, November 8-11, 2005. Madison, WI. (Oral)

Peckham. Lakes from space: a new way of looking at your water. Conference: *Wisconsin Lakes Convention*, April 28, 2005. Green Bay, WI. (Oral)

Chipman, Lillesand, Peckham, Batzli, and Wolter. Satellite monitoring of Wisconsin's nearshore Lake Michigan waters. Conference: *ASPRS Annual Conference*, March 11, 2005. Baltimore, MD.

### **PROFESSIONAL AFFILIATIONS**

Member, American Society for Photogrammetry and Remote Sensing, 2004-05.

### **OTHER**

Outdoor enthusiast—fly-fishing, hunting, canoeing, skiing, hiking, and mountain biking.  
Reasonable cook.