

## Todd J. Hawbaker

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### Education

May, 2008 (anticipated), PhD Forestry, University of Wisconsin – Madison  
2003, M.S. Forestry, University of Wisconsin – Madison  
1998, B.S. Animal Ecology, Iowa State University

### Professional experience

*Graduate Research Assistant* Sep. 2004 – present  
University of Wisconsin, Department of Forest Ecology & Management, Madison, WI

*Research Intern* Sep. 2003 – Aug. 2004  
University of Wisconsin, Department of Forest Ecology & Management, Madison, WI

*Graduate Research Assistant* Jan. 2001 – Aug. 2003  
University of Wisconsin, Department of Forest Ecology & Management, Madison, WI

*Restoration Ecologist* May 1998 – Dec. 2000  
Salix Ecological Resources, Windom, MN

*Geographic Information Systems Technician*  
Iowa Natural Heritage Foundation, Des Moines, IA Apr. 1998 – May 1998  
Iowa State University, Department of Animal Ecology, Ames, IA Oct. 1997 – Apr. 1997  
Iowa State University, Department of Botany, Ames, IA Oct. 1997 – Dec. 1997  
Natural Resources Inventory, Ames, IA Sep. 1998 – Apr. 1998

*Software Engineer & UNIX Systems Administrator* May 1993 – Oct. 1997  
Engineering Animation Inc., Ames, IA

*Crew Leader* Summers of 1991 & 1993  
Iowa Conservation Corps, Ames, IA

### Peer-reviewed journal articles

#### *In review*

- Hammer, R. B., V. C. Radeloff, S. I. Stewart, and **T. J. Hawbaker**. *In review*. Public lands and housing growth in northern Wisconsin from 1940 to 2000. *Environmental Management*.
- **Hawbaker, T. J.**, V. C. Radeloff, A. D. Syphard, Z. Zhu, and S. I. Stewart. *In review*. Detection rates of the MODIS active fire product. *Remote Sensing of Environment*.
- Syphard, A.D., V.C. Radeloff, N. S. Keuler, R. S. Taylor, **T. J. Hawbaker**, S. I. Stewart, and M.K. Clayton. *In review*. Predicting spatial patterns of fire in a southern California landscape. *International Journal of Wildland Fire*.

### *In print*

- Gonzalez-Abraham, C. E., V. C. Radeloff, R. B. Hammer, **T. J. Hawbaker**, S. I. Stewart, and M. K. Clayton. 2007. Building density and landscape pattern from 1938 to 1998 in northern Wisconsin, USA. *Ecological Applications* 17:2911-2923.
- Pidgeon, A. M., V. C. Radeloff, C. H. Flather, M. K. Clayton, C. A. Lepczyk, **T. J. Hawbaker**, and R. B. Hammer. 2007. The effects of housing density and landscape patterns on bird species richness across the United States. *Ecological Applications* 17:1989-2010.
- Stewart, S. I., V. C. Radeloff, R. B. Hammer, and **T. J. Hawbaker**. 2007. Defining the Wildland Urban Interface. *Journal of Forestry* 105:201-207.
- Syphard, A. D., V. C. Radeloff, J. E. Keeley, **T. J. Hawbaker**, M. K. Clayton, S. I. Stewart, and R. B. Hammer. 2007. Human influence on California fire regimes. *Ecological Applications* 17:1388-1402.
- Gonzalez-Abraham, C. E., V. C. Radeloff, R. B. Hammer, **T. J. Hawbaker**, S. I. Stewart, and M. K. Clayton. 2006. Effects of building density, landownership, and land cover on landscape fragmentation in northern Wisconsin, USA. *Landscape Ecology* 22:217-230.
- **Hawbaker, T. J.**, V. C. Radeloff, C. E. Gonzalez-Abraham, R. B. Hammer, and M. K. Clayton. 2006. Changes in the road network, relationships with housing development, and the effects on landscape pattern in northern Wisconsin: 1937 to 1999. *Ecological Applications* 16: 1222-1237
- St-Louis, V., A. M. Pidgeon, V. C. Radeloff, **T. J. Hawbaker**, M. K. Clayton. 2006. High-resolution image textures as predictors of bird species richness. *Remote Sensing of Environment* 105:299-312.
- **Hawbaker, T. J.**, V. C. Radeloff, R. B. Hammer, and M. K. Clayton. 2005. Road density and landscape pattern in relation to housing density, land ownership, land cover, and soils. *Landscape Ecology* 20:609-625.
- **Hawbaker, T. J.** and V. C. Radeloff. 2004. Road and landscape pattern in northern Wisconsin based on a comparison of four road data sources. *Conservation Biology* 18:1233-1244.

### **Other publications**

- Hawbaker, T. J. 2004. Road density and landscape pattern in Northern Wisconsin, USA; present and past perspectives on environmental constraints and social drivers. M.S. Thesis. University of Wisconsin – Madison. 122 pp.

### **Conference presentations**

1. **Hawbaker, T. J.**, C. Miller, S. I. Stewart, R. B. Hammer, and V. C. Radeloff. 2007. Housing density and wilderness fire management. *EastFIRE Conference. June 5-8, Fairfax, VA.*
2. Stewart, S. I., R. B. Hammer, V. C. Radeloff, **T. J. Hawbaker**, and S. Golding. 2007. Housing growth across the United States, 1940-2030, and implications for natural resource management. 13<sup>th</sup> International Symposium on Society and Resource Management, June 17-21, Park City, Utah.

3. **Hawbaker, T.J.**, V. C. Radeloff, A. D. Syphard, Z. Zhu, and S. I. Stewart. 2007. Detection rates of the MODIS active fire products *4th International Wildland Fire Conference*, May 14-17, Seville, Spain.
4. **Hawbaker, T. J.**, V. C. Radeloff, A. D. Syphard, S. I. Stewart, and R. B. Hammer. 2006. Contemporary fire regimes of the United States as measured with MODIS satellite fire data. *3<sup>rd</sup> International Fire Ecology and Management Congress*, Nov 13-17<sup>th</sup>, San Diego, CA.
5. Syphard, A. D., R. S. Taylor, V. C. Radeloff, M. K. Clayton, **T. J. Hawbaker**, R. B. Hammer, and S. I. Stewart. 2006. Predicting the spatial patterns of fire ignitions in southern California coastal shrublands. *3<sup>rd</sup> International Fire Ecology and Management Congress*, Nov 13-17<sup>th</sup>, San Diego, CA.
6. **Hawbaker, T. J.**, V. C. Radeloff, A. D. Syphard, S. I. Stewart, and R. B. Hammer. 2006. Modern fire geography of the U.S. derived from MODIS satellite active fire data. *American Association of Geographers Annual Meeting*, March 7 -11, Chicago, IL.
7. Gonzalez-Abraham, C. E., V. C. Radeloff, **T. J. Hawbaker**, R. B. Hammer, and S. I. Stewart. 2005. Landscape fragmentation due to housing growth in northern Wisconsin, USA from 1938 to 1998. *Ecological Society of America 90<sup>th</sup> Annual Meeting*, August 7-12, Montréal, Canada.
8. Gritt, J., V. C. Radeloff, **T. J. Hawbaker**. 2005. Sixty years of landscape fragmentation due to road and housing development in north-central Wisconsin (poster). *Ecological Society of America 90<sup>th</sup> Annual Meeting*, August 7-12, Montréal, Canada.
9. Rooney, T., D. Rogers, **T. Hawbaker**, V. Radeloff, and D. Waller. 2005. Local versus landscape predictors of invasive plant colonization and abundance in Midwestern forests. *Ecological Society of America 90<sup>th</sup> Annual Meeting*, August 7-12, Montréal, Canada.
10. St-Louis, V. A. M. Pidgeon, V. C. Radeloff, and **T. J. Hawbaker**. 2005. Using image texture analysis to predict breeding birds' response to fine scale habitat variability in semi-arid environments. *Ecological Society of America 90<sup>th</sup> Annual Meeting*, August 7-12, Montréal, Canada.
11. Radeloff, V. C., **T. J. Hawbaker**, R. B. Hammer, and S. I. Stewart. 2005. Pattern of change of the Wildland-Urban Interface in the Eastern United States. *EastFIRE Conference*, 7-13 May 2005, Fairfax, VA.
12. **Hawbaker, T. J.** 2004. Changes in road density and landscape pattern in northern Wisconsin, 1937-1999. *Science in the Northwoods*. September 16 & 17<sup>th</sup>, Boulder Junction, WI.
13. **Hawbaker, T. J.** and V. C. Radeloff. 2004. Time lags of invasive species spread along an expanding road network. *Ecological Society of America 89<sup>th</sup> Annual Meeting*. August 1 – 6, Portland, OR.
14. **Hawbaker, T. J.**, C. E. Gonzalez, V. C. Radeloff, R. B. Hammer, and S. I. Stewart. 2003. Cumulative effects of roads and houses on forest fragmentation in northern Wisconsin (poster). *Society for Conservation Biology 17th Annual Meeting*. June 29 - July 2, Duluth, MN.
15. Gonzalez-Abraham, C. E., **T. J. Hawbaker**, V. C. Radeloff, R. B. Hammer, and S. I. Stewart. 2003. Changes in forest fragmentation by housing in northern Wisconsin

1938-1998. *Society for Conservation Biology 17th Annual Meeting*, June 29- July 2, Duluth, MN.

16. **Hawbaker, T. J.** and V. C. Radeloff. 2003. Incomplete road data and the implications for landscape level analyses. *American Association of Geographers Annual Meeting*, March 5 - 8, New Orleans, LA.
17. Culbert, P. D., **T. J. Hawbaker**, V. C. Radeloff, and R. B. Hammer. 2003. Monitoring housing development in forested areas with remotely sensed data (poster). *North American Forest Ecology Workshop*, June 16-20, Corvallis, OR.
18. **Hawbaker, T. J.** and V. C. Radeloff. 2003. Changes in road density and landscape pattern in northern Wisconsin, 1938-1998. *North American Forest Ecology Workshop*, June 16-20, Corvallis, OR.
19. **Hawbaker, T.J.**, V. C. Radeloff, and Roger B. Hammer. 2002. Patterns of road density in northern Wisconsin: driving and limiting factors. *17th Annual Symposium, International Association of Landscape Ecology, U.S. Regional Association*, April 23 - 27, Lincoln NE.

#### **Invited presentations and outreach**

- Hawbaker, T.J. 10/2004. Ag Facts radio interview: invasive species spread along roads.
- UW – Madison news release. 8/4/2004. Forest managers can fight invasive species that come with roads. (<http://www.news.wisc.edu/releases/10018.html>).
- Hawbaker, T. J. and C. E. Gonzalez. 2003. Historical patterns of development in northern Wisconsin. Kemp Natural Resources Station Public Outreach Session. August 6. Lake Tomahawk, WI.

#### **Awards and fellowships**

- University of Wisconsin, Vilas Travel Fellowship, 2006-2007
- Green Tree Garden Club Aldo Leopold Scholarship, 2005-2006
- NASA-MSU Scholarship in Landscape Ecology, National Aeronautics and Space Administration and Michigan State University, 2002

#### **Teaching experience**

Teaching Assistant, “Assessing Forest Ecosystems.” *Forest Ecology and Management 655, a three-credit field course at the undergraduate level*. Kemp Natural Resources Station. May 15 – June 3, 2006.

Guest lecturer, “Forest Biometry.” *Forest Ecology and Management 300*. University of Wisconsin – Madison. Spring 2002 and 2005.

### **Undergraduate research mentoring**

- John Gritt. 2005. Sixty years of landscape fragmentation due to road and housing development in north-central Wisconsin.
- Patrick Culbert. 2003. Monitoring housing development in forested areas with remotely sensed data.

### **Student workers supervised**

- 2007: Dan Olsen and Kristen Rohde
- 2006: Matt Duffy, Jason Jones, and Joseph Nadolski
- 2005: Corey Hart and Joseph Nadolski
- 2004: Robert Costanza, John Gritt, Seth Hostert, Joseph Lennart, Nick Pelliteri, Adam Ridley, J. Paul White
- 2003: Patrick Culbert, Emily Duerr, Lisa Jeidy, Aaron Mielke, Jason Vroman, Victor Waldron
- 2002: Günther Castillon, Theran Stautz, Steve Wangen