

## CURRICULUM VITAE

## RESEARCH INTERESTS

**Integrated modeling of socioecological systems and natural resource management, land use and land cover change science, remote sensing, rural lands and livelihoods**

## EDUCATION

**2005-Present – University of Florida – Gainesville, Florida**

Seeking M.S. and Ph.D. in Geography, with minors in land use/land cover change modeling

Committee: Dr. Jane Southworth (advisor), Dr. Timothy Fik, Dr. Greg Kiker

Thesis: *Defining Differences in Remote Sensing Data Sources: Linking Landsat and ASTER Data for Longitudinal Research*

Proposed Dissertation: *Sensing Change: Analyzing Interactions of Land Cover, Land Use and Forest Changes in Wallowa County, Oregon*

**1994-1998 – University of Chicago – Chicago, Illinois**

B.A. in Biology with Honors, specializing in Ecology and Evolution; Dean's List

Concentration GPA 3.9/4.0; cumulative GPA 3.6/4.0

**1993 – National Science Foundation Young Scholar – Austin, Texas****1990-1994 – Pocatello High School – Pocatello, Idaho**

High Honors; GPA 4.0/4.0

## RELATED EXPERIENCE

**2007-2008 – NSF HSD MAP Amazon Roads Project, University of Florida – Gainesville, Florida**

Dr. Stephen Perz, Dr. Jane Southworth (Co-PI)

- Research activities included Landsat and ASTER satellite imagery pre-processing and analysis
- Collected training samples, developed database-integrated ArcGIS data management system
- ENVI/IDL programming in addition to ERDAS Imagine processing
- International field work in Bolivia and Brazil

**2006-2008 – Graduate Teaching Assistantships, University of Florida – Gainesville, Florida**

- Developed and sole lecturer, *Introduction to Programming for GIS and Remote Sensing (GEO 6938/GEO 4938)*, focused on programming concepts and Python integration with ArcGIS
- TA for *Remote Sensing of the Environment (GEO 4938/GEO 5134)*

**2006-2007 – Graduate Research Assistantship, University of Florida – Gainesville, Florida**

- Developed online Java-based application for the retrieval and pre-processing of historical NEXRAD radar data for hurricane research in cooperation with Dr. Corene Matyas

**1997-1999 – Research Assistant, University of Chicago – Chicago, Illinois**

Dr. Cathy A. Pfister, Department of Ecology and Evolution

- Intertidal field data collection off the coast of the Olympic Peninsula in Washington
- Sculpin fish marking/capture
- Data analysis and algae species identification collected from low intertidal pools
- Developed large computer simulations comparing individual-based and matrix population models

**1997-1998 – Senior Honors Research Thesis, University of Chicago -- Chicago, Illinois**

Dr. Cathy A. Pfister (advisor), Department of Ecology and Evolution

- Study of trophic interactions and nutrient exchange in Olympic Peninsula estuaries, Washington
- Ten weeks of field work and 20 weeks of lab work
- Funded by a grant from the Howard Hughes Medical Institute Undergraduate Research Fund
- Taxonomic identification of euryhalic organisms
- Developed experimental enclosure methods tailored to estuarine, aquatic environments

**1996 – Summer Field Ecology Research Assistant, Idaho State University -- Pocatello, Idaho**

Dr. Nancy Huntly, Department of Ecology

- Study of high-alpine, small mammal metapopulations on the Beartooth Plateau, Wyoming
- Captured, tagged, and observed pikas for metapopulation models of population dispersal
- Alpine vegetation identification and sorting from animal enclosures

*OTHER WORK EXPERIENCE*

**1998-2003 – Data Analyst and Information Management, NWREL – Portland, Oregon**

Evaluation Program, Northwest Regional Educational Laboratory

- Created fully- and semi-automated systems for handling data collection, statistical analysis, and data presentation, using diverse technologies, many with spatial or GIS components

**1997-2006 – Freelance Web/Database, and Open Source Programmer, Systems Design**

*GRANTS AND AWARDS*

**2009 – Quantitative Spatial Ecology, Evolution, and Environment (QSE<sup>3</sup>) IGERT Fellow**, National Science Foundation and University of Florida (\$60,000 + tuition)

**2008 – Mazamas Graduate Research Grant**, Mazamas Foundation (\$5,000)

**2007 – Excellence in Graduate Teaching Award**, University of Florida Department of Geography (\$200)

**2006-2008 – Competitive travel grants from:** College of Liberal Arts and Sciences, Graduate Student Council, Land Use and Environmental Change Institute (\$250-500)

**2005-2009 – Presidential Fellow**, University of Florida (\$58,000 + tuition)

**1997 – Howard Hughes Undergraduate Research Fellow**, Howard Hughes Medical Institute (\$5,000)

**1994 – National Science Scholar**, U.S. Department of Education

**1994 – Bausch & Lomb Science Award and the Bausch & Lomb Science Scholarship**, Bausch & Lomb/University of Rochester, Rochester, New York

**1993 – National Science Foundation Scholarship**, NSF and the University of Texas at Austin

*PROFESSIONAL MEMBERSHIP*

- **Association of American Geographers (AAG)**
- **American Society for Photogrammetry and Remote Sensing (ASPRS)**

*SERVICE AND OTHER ACTIVITIES*

- **Reviewer for *International Journal of Remote Sensing*, *American Naturalist***
- **University of Florida, Graduate Student Council**, term 2007-2008
- **Graduate Student Senior Seminar Panelist**, University of Florida Department of Geography
- **University of Florida Land Use and Environmental Change Institute (LUECI)**, collaborative research

*LANGUAGES STUDIED*

- **German** – intermediate knowledge
- **Spanish** – beginner knowledge

## REFEREED ARTICLES

- Pfister, C. A., and **F. R. Stevens**. 2003. Individual variation and environmental stochasticity: Implications for matrix model predictions. *Ecology* 84 (no. 2):496-510.
- Pfister, C. A., and **F. R. Stevens**. 2002. The genesis of size variability in plants and animals. *Ecology* 83 (no. 1):59-72.

## MANUSCRIPTS IN PREPARATION OR PRESS

- Marsik, M., **F. R. Stevens**, and J. Southworth. Patterns and rates of land cover change in Pando, northern Bolivia from 1986 to 2005. to *Progress in Physical Geography*.
- Southworth, J., M. Marsik, **F. R. Stevens**, K. Rocha, and S. Perz. Land Cover Change Patterns and Processes: Linking to Infrastructure Change and Resilience in Social-Ecological Systems: The Case of Southwestern Amazonia. to *Journal of Land Use Science*

## CONTRIBUTED PRESENTATIONS AT CONFERENCES

- Stevens, F. R.**. 2008. Defining Differences in Remote Sensing Data Sources: Linking Landsat and ASTER Data for Longitudinal Research. Association of American Geographers Annual Meeting, April 15-19, 2008. Boston, MA.
- Marsik, M., **F. R. Stevens**, M. Rocha, J. Southworth, F. Barra, F. Brown, S. Perz. 2007. Road Expansion and Land Cover Change from 1986 to 2006 in Southwestern Amazonia. Florida Society of Geographers Annual Meeting. Jacksonville, February 9-11, 2007. Jacksonville, FL

## CONTRIBUTED PRESENTATIONS AT INTERNATIONAL CONFERENCES

- Stevens, F. R.**. 2007. Rayas y Brechas en los Datos: Valorando Imágenes de ASTER como una Alternativa a Landsat para la Región MAP. Primer Mini Map – Sensoramiento Remoto, July 6-9, 2007. Universidad Amazônica de Pando, Cobija, Pando, Bolivia.
- Marsik, M., K. Rocha, J. Southworth, **F. R. Stevens**, and N. Hoyos. 2007. Uso de Imágenes Landsat: Experiencias de la UF en la Región MAP. Primer Mini Map – Sensoramiento Remoto, July 6-9, 2007. Universidad Amazônica de Pando, Cobija, Pando, Bolivia.

## CONTRIBUTED POSTERS AT CONFERENCES

- Marsik, M., **F. R. Stevens**, K. Rocha, and J. Southworth. 2008. Patrones y Tasas de Deforestación en Pando, Bolivia desde 1986 a 2005. IV Reunión Nacional Sobre Investigación Forestal, September 3-5, 2008. Cobija, Pando, Bolivia.
- Marsik, M., K. Rocha, **F. R. Stevens**, and J. Southworth, 2008. Modelos e Taxas de Desmatamento em Pando, Bolivia de 1986 a 2005. Seminário Anual de Cooperação UFAC-UF, July 7-8, 2008. Universidade Federal do Acre, Rio Branco, Acre, Brazil.
- Stevens, F. R.**. 2007. Bridging the Landsat Data Gap: Evaluating ASTER as an Alternative. Association of American Geographers Annual Meeting, April 17-21, 2007. San Francisco, CA.

## INVITED PRESENTATIONS AND LECTURES

- Stevens, F. R.** 2008. Uncertainty and Unpredictability: Introduction to Deterministic Models and Their Applications to Global Climate Change. Presented to the UF GEO 3930 Introduction to Climate Change, November 7, 2008. University of Florida, Gainesville, FL.
- Stevens, F. R.** 2008. Linking Landsat and ASTER Data for Longitudinal Research. Department of Geography Colloquium Series, March 5, 2008. University of Florida, Gainesville, FL.

## RELEVANT COURSEWORK

- 2005-2006, Fall – GEO5134C, **Remote Sensing**, Dr. Jane Southworth
- 2005-2006, Fall – GEO6118, **Contemporary Geographic Thought**, Dr. Ary Lamme
- 2005-2006, Fall – GEO6938-4199, **Introductory Quantitative Analysis**, Dr. Timothy Fik
- 2005-2006, Spring – GEO5177C, **Geographic Information Systems (GIS) Research**, Dr. Youliang Qiu
- 2005-2006, Spring – GEO6938-4657, **Land Use, Cover Change Seminar**, Dr. Jane Southworth
- 2005-2006, Spring – GEO6938-5777, **Intermediate Quantitative Analysis**, Dr. Timothy Fik
- 2006-2007, Fall – ABE5643C, **Biological Systems Modeling**, Dr. Gregory Kiker
- 2006-2007, Fall – ABE6262C, **Remote Sensing and Hydrology**, Dr. Jasmeet Judge
- 2006-2007, Fall – GEO6938-5273, **Principles of Geographic Hydrology**, Dr. Peter Waylen
- 2006-2007, Spring – EVR6320, **Natural Resource Management Seminar**, Dr. Kelly Chinnners Reiss
- 2006-2007, Spring – FOR6156, **Simulation Analysis of Forest Ecosystems**, Dr. Wendell Cropper
- 2006-2007, Spring – GEO6938-7626, **Advanced Remote Sensing**, Dr. Jane Southworth
- 2007-2008, Fall – POS6933, **Water Politics**, Dr. Katrina Schwartz and Dr. Sandra Russo
- 2007-2008, Fall – STA5507, **Applied Nonparametric Methods**, Dr. Xueli Liu
- 2007-2008, Spring – STA5503, **Categorical Data Analysis and Methods**, Dr. Alan Agresti