

**Matthew C. Simon, MA, GISP**

403 Gary Road, Carrboro, NC 27510 ♦ (919)928-4477 ♦ [MattSimon@unc.edu](mailto:MattSimon@unc.edu)

---

<b>Education</b>	<b>Master of Arts, Geography</b> <i>University of North Carolina at Chapel Hill</i> Thesis: <i>Evaluating Conservation Assessments in the Sandhills of North Carolina</i>	Aug 2009
	<b>Bachelor Science, Environmental Sciences</b> <i>University of North Carolina at Chapel Hill</i> Minor: Biology	Dec 2002
<b>Professional Training/Certification</b>	<b>GIS Certification Institute</b> <i>Certified as a Geographic Information Systems Professional (GISP)</i>	Oct 2011 – Present
	<b>University of North Carolina, School of Public Health</b> <i>Certificate in Field Epidemiology</i>	Aug 2011-Aug 2013
<b>Work Experience</b>	<b>University of North Carolina, Chapel Hill, NC</b>	Aug 2006 – Present
	<b>GIS Analyst, NC Institute for Public Health</b>	Aug 2009 – Present
	<ul style="list-style-type: none"><li>▪ Subject-matter expert in Community Assessment for Public Health Emergency Response (CASPER) sampling methods using handheld GPS units and GIS</li><li>▪ Led the conception and design of Collect SMART, Survey Management and Response Tools, a suite of mobile and web-based software designed to help users manage and implement data collection efforts.</li><li>▪ Assisted in design and implementation of new initiative; Spatial Health Assessment and Research Program (SHARP) offering GIS and technical support with data analysis and collection projects related to emergency preparedness or other community-wide or regional wide public health concerns</li><li>▪ Provided technical support, training and data collection coordination for 35 pre- and post-disaster assessments including: Hurricane Irene (NC), reproductive health, public health and wildfire safety messaging, intent to receive H1N1 vaccination, ice storm damage (KY), emergency preparedness (WV) and multiple community health assessments.</li></ul>	
<b>Research &amp; Teaching Assistant, Geography Department</b>	Aug 2006-Aug 2009	
	<ul style="list-style-type: none"><li>▪ Research Assistant, Strategic Environmental Research and Development Program, Department of Defense</li><li>▪ Research Assistant, National Aeronautics and Space Administration</li><li>▪ Teaching Assistant, Remote Sensing of the Environment</li></ul>	
	<b>Course Lecturer &amp; Team Leader, Institute for the Environment</b>	June 2008-Aug 2008
	<ul style="list-style-type: none"><li>▪ Development of course material for two honors courses: New Frontiers: Environment and Society in the United States, field based lectures, and Mountain Ecology</li><li>▪ Team leader for 2 groups of 13 undergraduates on a 42-day backpacking “walking classroom” through the Sierra Nevada Mountains - John Muir and High Sierra Trail</li></ul>	

**Matthew C. Simon, MA, GISP**

403 Gary Road, Carrboro, NC 27510 ♦ (919)928-4477 ♦ [MattSimon@unc.edu](mailto:MattSimon@unc.edu)

---

**Senior GIS Analyst**

Dec 2002–July 2006

*Environmental Services, Inc. Raleigh, NC*

- GPS Manager and Field Equipment Coordinator
- Field Ecologist Level I responsible for wetland and stream delineation and threatened and endangered plant surveys
- Responsible for advanced spatial data editing and manipulation
- Assisted in the development of an archaeological predictive model used by the North Carolina Department of Transportation to minimize mitigation costs

**Graduate Research**

Aug 2006-Aug 2009

**Master's Research**

*University of North Carolina Department of Geography, Chapel Hill, NC*

- Evaluated multiple conservation assessment techniques using GIS and spatial analysis to find congruence and gaps in conservation (Aaron Moody, Advisor)

**Publications**

**Referenced Journal Articles**

Bevc CA, **Simon MC**, Montoya TA, Horney JA. (2014) Institutional facilitators and barriers to local public health preparedness planning for vulnerable and at-risk populations. *Public Health Reports*, 129(s4):35-41.

Horney JA, **Simon MC**, Grabich S, Berke P. (2014) Assessing individual knowledge of the hazard mitigation planning process, Bertie County, NC. *Journal of Environmental Planning and Management*. DOI: 10.1080/09640568.2014.892870.

Kolwaite AR, Hlady G, **Simon MC**, Cadwell BL, Daley R, Fleischauer AT, May Z, Thoroughman D. (2013) Assessing Functional Needs Sheltering in Pike County, Kentucky: Using Community Assessment for Public Health Emergency Response. *Disaster Medicine and Public Health Preparedness* 7 (06): 597-602. DOI: 10.1017/dmp.2013.110.

Horney JA, Nguyen M, Cooper J, **Simon MC**, Ricchetti-Masterson K, Salvesen D, Berke P. (2013) Accounting for vulnerable populations in rural hazard mitigation plans: Results of a survey of emergency managers. *Journal of Emergency Management* 11(3):205-211.

Rosselli R, Bevc C, **Simon MC**, Casani J, Horney JA, MacDonald PDM (2013). Residential Household Knowledge and Receipt of Potassium Iodide within the 10-mile Emergency Planning Zone of a Nuclear Power Plant in North Carolina. *International Journal of Mass Emergencies and Disasters* 31(2):204-218

Horney JA, Naimi A, Lyles W, **Simon MC**, Salvesen D, Berke P. (2012) Assessing the relationship between hazard mitigation plan quality and rural status in a cohort of 57 counties from 3 states in the Southern United States. *Challenges* 3(2): 183-193.

**Book Chapters**

Horney JA, Wilfert R, **Simon MC**, Johnson M. (2011). Geographic Information Systems for Field Epidemiology. In PDM MacDonald (Ed.) *Methods in Field Epidemiology* Sudbury, MA: Jones and Bartlett.

Peer Reviewed  
Presentations

**Simon MC**, Decosimo K, Wilfert R, Horney JA. *A Mobile Data Collection App and Project Management Web-tool for Assessing Health Needs Before or After Disasters*. Poster presented at: 2015 National Association of County and City Health Organization (NACCHO) Preparedness Summit. Atlanta, GA, April 14-17, 2015.

Decosimo KP, **Simon MC**, Wilfert RA. Using mobile technology and geographic information systems (GIS) sampling tools for collecting primary data for community health needs assessments. Association for Community Health Improvement Conference; March 4-6, 2015; Dallas, TX.

Southwell JK, **Simon MC**, Decosimo KP, Sergeant J, Barker A, Macon-Harrison L, Michaels K, Farrell D. Using geo-spatial analysis for planning targeted chlamydia interventions among high-risk groups. Presented at: American Public Health Association Annual Meeting; November 15-19, 2014; New Orleans, LA.

**Simon MC**, Southwell JK, Decosimo KP. The highs and lows of mapping communicable disease using a statewide surveillance system in North Carolina. Presented at: ESRI Health GIS Conference; November 2014; Colorado Springs, CO.

Bevc CA, Khan M, Schultz J, **Simon MC**, Casani J. Jurisdictional Mapping and Resources for Vulnerable and At-Risk Populations Planning. North Carolina Public Health Association Annual Educational Conference; September 17-19, 2014; Wilmington, NC.

Southwell JK, **Simon MC**, Decosimo KP, Wilfert R. (2014). The Ethics and Obstacles of Mapping Communicable Disease Surveillance Data for Targeted Intervention in North Carolina. Presented at North Carolina Public Health Association 2014 Educational Conference; September 17-19, 2014; Wilmington, NC.

Bevc CA, **Simon MC**, Horney JA. Success in Building Competency and Preparedness Capability for At-Risk Populations Planning. NACCHO Public Health Preparedness Summit; April 2014.

**Simon MC**, Horney J, Decosimo K, Alfano-Sobsey E, Hagar P. Using Geographic Information Systems (GIS) as a tool to build academic and community collaboration for conducting community health assessments. APHA Annual Meeting November 2-6, 2013; Boston, MA.

**Simon MC**, Decosimo K, Wilfert R, Horney J. Primary Data Collection Methods for Community Health Needs Assessments in North Carolina. North Carolina Society for Public Health Education Annual Meeting October 2013.

**Simon MC**, Horney J. Using disaster assessment methodology as an approach to collect data for community health assessments in Wake County, North Carolina. North Carolina Public Health Association Annual Meeting September 18-20, 2013; Asheville, NC.

Bevc C, **Simon MC**, Montoya T, Horney JA. Institutional Impediments: An Evaluation of Local Planning Practices for Vulnerable and At-Risk Populations. Annual Researchers Meeting of the International Research Committee on Disasters (RC-39), Broomfield, CO, July 16-17, 2013.

Bevc C, **Simon MC**, Montoya T, Horney JA. Institutional Facilitators and Barriers to Local Public Health Preparedness Planning for Vulnerable and At-Risk Populations.

**Matthew C. Simon, MA, GISP**

403 Gary Road, Carrboro, NC 27510 ♦ (919)928-4477 ♦ [MattSimon@unc.edu](mailto:MattSimon@unc.edu)

---

Natural Hazards Center Annual Workshop July 2013.

Bevc C, **Simon MC**, Montoya T, Horney JA. Variation in Planning Priorities for Vulnerable and At-Risk Populations. International Research Committee for Disasters July 2013.

Bevc CA, **Simon MC**, Montoya TA, Horney JA. Public Health Preparedness Planning for Vulnerable and At-Risk Populations Preliminary Results from the Vulnerable and At-Risk Populations Resource Guide. Poster presentation at NACCHO Public Health Preparedness Summit 2013; March 2013; Atlanta, GA.

Bevc CA, **Simon MC**, Markiewicz M, Horney JA. Vulnerable and At-Risk Populations Resource Guide. Natural Hazards Center Annual Workshop July 2012; Broomfield, CO.

**Simon MC, Horney JA.** *SHARP GIS: UNC's Spatial Health Assessment and Research Program.* Presented at: 2010 Esri Health GIS Conference; October 18-20, 2010; Denver, CO.

Fields WR, **Simon MC.** Predicting the locations of breeding pools to assess landscape connectivity for a rare amphibian. Presentation at the Ecological Society of America 2009 Annual Meeting. August 4, 2009. Albuquerque, NM.

**Simon MC.** Searching for congruence in conservation assessments; A case study in the Sandhills of North Carolina. Presentation at the US International Association of Landscape Ecologists Symposium. April 12, 2009. Snowbird, UT.

**Peer-reviewed posters**

Bevc CA, Rosselli RT, **Simon MC**, Greene DM, Horney JA, Casani J, and MacDonald PDM. *Community-based Vulnerabilities associated with Local Nuclear Hazard Risk.* Paper presented at Annual Meeting of Midwest Sociological Society; St. Louis, MO; March 24-27, 2011.

Rosselli RT, Bevc CA, **Simon MC**, Horney JA, Davis SD, Casani J and MacDonald PDM *Potassium Iodide Distribution and Education within the 10-mile Emergency Planning Zone of a Nuclear Power Plant in North Carolina.* Poster presented at Annual Meeting of National Association of County and City Health Organizations; February 22-25, 2011; Atlanta, GA

**Simon MC, Horney JA.** *Implementation of a Spatial Health Assessment and Research Program (SHARP).* Poster presented at: 2010 American Public Health Association; November 6-10, 2010; Denver, CO.

Jobe RT, Moody A, Fields W, Haddad N, Hudgens B, Morris B, Trainor A, Walters J, **Simon MC.** 2009. A Test of Umbrella Species for Habitat Connectivity. Poster presentation at Partners in Environmental Technology Technical Symposium & Workshop. Strategic Environmental Research Program: Department of Defense.

Jobe RT, Moody A, **Simon MC**, and Trainor A. 2007. Inferred canopy height profiles from small-footprint multiple-return airborne lidar. Poster presentation at Partners in Environmental Technology Technical Symposium & Workshop. Strategic Environmental Research Program. Department of Defense.

**Matthew C. Simon, MA, GISP**

403 Gary Road, Carrboro, NC 27510 ♦ (919)928-4477 ♦ [MattSimon@unc.edu](mailto:MattSimon@unc.edu)

---

**Invited Presentations**

Decosimo KP, **Simon MC**. Community Health Assessments in North Carolina. West Virginia Local Health Accreditation Readiness Workshop; August 21, 2014; Sutton, WV.

Bevc C, **Simon MC**, Horney JA. Demonstrating the Vulnerable and At-Risk Populations Resource Guide. Centers for Disease Control and Prevention Social Vulnerability Workshop, Atlanta, GA, July 11, 2013.

Bevc C, **Simon MC**, Horney JA. Demonstrating the Vulnerable and At-Risk Populations Resource Guide. Centers for Disease Control and Prevention Social Vulnerability Workshop, Atlanta, GA, July 11, 2013.

**Simon MC**, Horney JA. GIS and Public Health Threat Preparedness. Presented at: West Virginia 2012 Public Health Threat Preparedness Conference; July 2012; Charleston, WV.

**Simon MC**, Horney JA. Using GIS to Improve Public Health. Presented at: NC Association of Public Health Nurse Administrators Quarterly Meeting; April 2012; Wilmington, NC.

**Simon MC**, Horney JA. GIS Application for Local Public Health. Presented at: Onslow County Public Health External Epidemiology Team Quarterly Meeting; May 2012; Jacksonville, NC.

Horney JA and **Simon MC**. Use of Community Assessment for Public Health Emergency Response (CASPER) methods in a non-disaster setting: Examples from NC. Centers for Disease Control and Prevention CASPER Subject Matter Expert meeting, November 2011.

**Simon MC**, Horney JA. *CASPER IN NC*. Presented at: Community Assessment for Public Health Emergency Response Workshop; May 26-27, 2010; Myrtle Beach, SC.

**Other Publications and Media**

Bevc CA, MacDonald PDM, Horney JA, **Simon MC**, Markiewicz ML, and Gunther-Mohr C. "Vulnerable and At-Risk Populations Resource Guide: Introducing a new tool for public health preparedness." Research Brief, NC Preparedness and Emergency Response Research Center, Chapel Hill, NC. Jan. 2012.  
[http://cphp.sph.unc.edu/ncperrc/research/RBriefVaRpopGuide\\_18jan2012.pdf](http://cphp.sph.unc.edu/ncperrc/research/RBriefVaRpopGuide_18jan2012.pdf)

MacDonald PDM, Rosselli RT, Bevc CA, **Simon MC**, and Horney JA. "Community Survey of Potassium Iodide (KI) Distribution and Households Understanding of KI." Research Brief, UNC Center for Public Health Preparedness, Chapel Hill, NC. 2011.

Tinling M, **Simon MC**, Horney JA. Community assessments: public safety and health messaging during 2011 Holly Shelter Game Land wildfire, Pender County, NC. *EpiNotes*. North Carolina Department of Health and Human Services: Raleigh, NC. Available at: <http://epi.publichealth.nc.gov/pdf/en2012-1.pdf>.

**Simon MC** and Horney JA. GeoWorld Magazine, Mobile GIS / GPS Advances Public Health Response, 24(4): 18-21. (2011) <http://read.dmtmag.com/issue/29869>

Rosselli RT, Bevc CA, **Simon MC**, Horney JA, and MacDonald PDM. *Community Survey of Potassium Iodide (KI) Distribution and Households' Understanding of KI*.

**Matthew C. Simon, MA, GISP**

403 Gary Road, Carrboro, NC 27510 ♦ (919)928-4477 ♦ [MattSimon@unc.edu](mailto:MattSimon@unc.edu)

---

Technical Report prepared for North Carolina Division of Public Health, Office of Public Health Preparedness and Response, February 21, 2011.

**Simon MC.** *The California Channel Islands with topography and bathymetry.* Map. Moody, A. (2009). Channel Islands (California), Biology. In R. Gillespie & D. Clague (Eds.), *Encyclopedia of Islands* (pp. 155-161). Berkeley, CA: University of California Press.

- Contracts and Grants**
- Rockingham County Department of Health and Human Services, July 1, 2015 – October 31, 2015 (Total award: \$11,550) – Principal Investigator
  - Gaston County Department of Health and Human Services, April 1, 2015 – October 31, 2015 (Total award: \$9,000) – Principal Investigator
  - Pender County Health Department, January 1, 2014 – October 31, 2014 (Total award: \$61,445) – Principal Investigator
  - Chatham County Health Department, March 1, 2014 – August 31, 2014 (Total award: \$4,996) – Principal Investigator
  - Forsyth County Health Department, April 1, 2014 – June 30, 2014 (Total award: \$15,000) – Principal Investigator

- Technical Skills**
- Proficient with ESRI ArcGIS & ArcView, MS Office, Erdas Imagine, Trimble, Magellan and Garmin GPS equipment
  - Some experience with Matlab, R, Fragstats, GRASS, EpiInfo, AutoCAD
  - Computer languages: Visual Basic, VBScript, ArcPad XML, Python

**Other Research Experience**

---

- Mapping habitat quality for a rare bird species in fragmented landscapes using low density discrete-return LiDAR, University of North Carolina Department of Geography and Michigan State Department of Fisheries and Wildlife (June 2009–December 2009)
- Assessment of the habitat connectivity of multiple rare, threatened and endangered species on and around Ft. Bragg, NC, University of North Carolina Department of Geography (August 2006 – August 2009)
- Exploring the links between biological diversity and ecosystem productivity, stability, and landscape heterogeneity as well as the variance of species turnover along environmental gradients using remote sensing and in-situ data. (August 2006-2009)