



# Stacy Nelson (1968-Present)

Associate Professor

**Center for Earth Observation,  
Dept. of Forestry,  
North Carolina State University**

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*"Form a support structure." Stacy Nelson, 2005.*

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## Overview

Dr. Nelson is an Associate Professor with the Center for Geospatial Analytics, the Department of Forestry and Environmental Resources, and the Fisheries, Wildlife, and Conservation Science Program at North Carolina State University. Stacy applies geospatial and statistical techniques to assess landscape, habitat, and ecosystem spatial problems. He uses remote sensing and geospatial technologies for understanding impacts of land change on aquatic systems at both regional and local scales. Stacy has personal and continued interests in developing opportunities to collaborate, share, and learn within and across disciplines, as well as taking these experiences outside of the academic environment and into the community. Some of his selected publications are below:

- Predicting fine-scale distributions of peripheral aquatic species in headwater streams February 9, 2015
- DeRolph, C. R., Nelson, S. A. C., Kwak, T. J., & Hain, E. F. (2015). Predicting fine-scale distributions of peripheral aquatic species in headwater streams. *Ecology and Evolution*, 5(1), 152-163.
- Tissue extraction methods for metabolic profiling of a freshwater bivalve, *Elliptio complanata* (Lightfoot, 1786) February 8, 2016
- Hurley-Sanders, J. L., Stoskopf, M. K., Nelson, S. A. C., Showers, W., Mac Law, J., Gracz, H. S., & Levine, J. F. (2015). Tissue extraction methods for metabolic profiling of a freshwater bivalve, *Elliptio complanata* (Lightfoot, 1786). *American Malacological Bulletin*, 33(2), 185-194.

*This interview was conducted in 2010.*

## **Early Life and Education**

Stacy Nelson was born on January 25, 1968 to Fred and Jenny Nelson, a professor and social worker. Growing up, he developed interests in fisheries and oceanography and he pursued these interest into college and beyond. Nelson's love and aptitude for the field is reflected in his academic and professional successes.

While attending Jackson State University as an undergraduate, Nelson did internships with the Duke University Marine lab, the National Oceanic & Atmospheric Administration (NOAA) and the National Science Foundation (NSF). After receiving his master's degree from the Virginia Marine Institute at William and Mary, Nelson taught marine science at the Southern University in New Orleans and conducted research through the National Aeronautics and Space Administration (NASA) Stennis Space Center. NASA later granted him a graduate research award, which he used to pursue a doctoral degree at Michigan State University. Following the completion of his doctoral degree in limnology, Nelson obtained his current position at North Carolina State University. His research interests include the use of remote sensing and GIS technologies as they pertain to land use/cover change, and the impact of such change on inland lakes, wetlands, and coastal ecosystems.

## **Highlights**

Nelson cites completing his graduate degrees and finding the funding and support to facilitate that process as the most significant achievements of his career thus far. He notes that the creation of a professional network does not always come easily; these relationships need to be built over time, and involve the intersection of work, integration, and trust.

## **Mentoring Others**

Nelson, in turn, has mentored graduate students and participated in internship programs, as well as diversity-related programs, at the local and national levels. In particular, Nelson has worked with NSF and the University of South Florida's program MSPHDS (Minorities Striving to Pursue Higher Degrees in Science), an organization that brings minority graduate and undergraduate students together to work as teams. Nelson also speaks at numerous symposiums and lectures, and notes "my phone rings from seven in the morning to midnight with calls from students from around the country." The ability to provide support to students has been the highlight of his career thus far; conversely, the greatest challenge of his work is losing promising students who are unable to overcome their personal challenges and life circumstances. Nonetheless, Nelson values being in a professional position in which he has the potential to help more students make an effective contribution to his field, one in which he believes there are many unexplored avenues.

## **Importance of Mentoring to Career**

Several individuals have mentored Nelson over the course of his life. His parents were an early influence; they were strong believers in the value of education and encouraged their son to cultivate his

passion for science. Nelson credits much of his professional success to his home structure and parental. His academic advisors at Jackson State and Michigan State were also important influences. His undergraduate advisor encouraged him to seek broader professional opportunities while his doctoral advisor, Professor William Taylor, recruited him and provided him with professional support throughout his doctoral career.

## **Advice to Young Professionals**

Having benefited greatly from such a network himself, Nelson makes it a priority to help his students construct similar networks of their own. "Network to get to know other minorities," he says. "Form a support structure because unfortunately, as much as you would like to be part of the broader system, you will appear as a rarity which attracts curiosity from academics, and from students, some of whom will have preconceived ideas about you....so support is very important. Even if you are not the majority there are others who have had similar experiences, and the experiences of people who have been through the ranks already are especially important."