

SAMANTHA D. STANFORD

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EDUCATION

M.S., Geology, 2016 University of North Carolina Wilmington, NC.

Thesis: *Relationship of escalation to frequency of drilling predation in Miocene and Pleistocene molluscs of the U.S. coastal plain*

Advisor: Dr. Patricia Kelley

B.S., Geology, 2010 (*magna cum laude*) Columbus State University, GA.

Undergraduate Research Project: *Coprolites of Deinosaurs and Other Crocodylians from the Upper Cretaceous of Western Georgia, USA*

Advisor: Dr. David Schwimmer

EMPLOYMENT

01/2018 – Present: Project Professional

TTL, Inc., Tuscaloosa, AL. Project professional assisting with permit applications and delineation reports as needed for TTL, Inc.

- Assisting project managers with Clean Water Act section 404 Nationwide and Individual permitting applications.
- Compiling field data and writing wetland delineation reports.
- Completing desktop delineation reviews.

09/2013-11/2013: Educator

Congaree National Park, Hopkins, SC. Geoscientists-In-Parks intern and educator hosted at Congaree National Park in partnership with the Geological Society of America and National Park Service Geologic Resource Division.

- Instructed interactive soil program and guided nature walk incorporating South Carolina 3rd grade earth science standards for 730 students.
- Edited LEAF program lesson plan and Congaree National Park Junior Ranger Program Activity booklet.

06/2013-08/2013: Educator

MarineQuest, University of North Carolina Wilmington department of Youth Programs, Wilmington, NC. Earth science educator for University of North Carolina Wilmington marine science summer enrichment camp.

- Instructed hands-on marine geology and paleontology programs; incorporated North Carolina Science Olympiad and 5th/6th grade earth science standards for >250 students.

08/2011-12/2012: Graduate Teaching Assistant

University of North Carolina Wilmington Department of Geography and Geology, Wilmington, NC.

- Instructed Physical Geology and Invertebrate Paleontology laboratory courses.

08/2011-06/2013: Administrative Assistant

University of North Carolina Wilmington Department of Geography and Geology, Wilmington, NC

- Assisted the Department of Geography and Geology chair and faculty with scheduling and clerical work.

ENVIRONMENTAL EDUCATION AND OUTREACH EXPERIENCE

08/2012-05/2013: Student Assistant

University of North Carolina Wilmington eTEAL ('Experiencing Transformative Education through Applied Learning')

- Implemented UNCW's eTEAL program in Invertebrate Paleontology course as part of the university's Quality Enhancement Plan.

10/2011 & 10/2012: Co-Coordinator

University of North Carolina Wilmington National Earth Science Week Programs

- Developed and implemented university-hosted science education outreach activities, including fossil "hunt" and identification and marine science and mineralogical games and activities for area elementary schools (> 80 students/year).

10/2012: Co-Coordinator

Cape Fear Museum of Science and History Science Spooktackular

- Implemented science education activities for the general public as part of Time Warner Cable's 'Connect a Million Minds' initiative.

2012: Event Supervisor

North Carolina Annual Science Olympiad

- Developed and scored test questions and organized hand samples of rocks and minerals according to North Carolina Science Olympiad handbook.

2011: Regional Science Fair Judge

Southeastern Regional Science Fair judge representing UNCW chapter of WiSE ('Women in Science and Engineering')

- Evaluated southeastern regional middle school earth and material science projects and awarded top scoring female for outstanding work.

2010: Author

State Standards Publishing Company

- Authored five third grade Lexile reading level books; *Rocks and minerals of Georgia* (see publications section).

2009-2010: Event Supervisor

Georgia Annual Science Olympiad

- Developed and scored test questions and organized vertebrate and invertebrate fossil specimens according to Georgia Science Olympiad handbook.

2008-2009: Volunteer

Oxbow Meadows Environmental Learning Center

- Assisted in developing and organizing local ecology teaching-aid boxes, cared for wildlife, and lead tours of the facility.

PUBLICATIONS

Peer Reviewed Publications

Ottens, Kristina J., Dietl, Gregory P., Kelley, Patricia H., **Stanford, Samantha D.** A Comparison of Analyses of Drilling Predation on Fossil Bivalves: Bulk- vs. taxon-specific sampling and the role of collector experience. *PALAEOGEOGRAPHY PALAEOCLIMATOLOGY PALAEOECOLOGY*. (319): 84-92, 2012

Harrell, Samantha D and Schwimmer David R., Coprolites of Deinosuchus and Other Crocodylians from the Upper Cretaceous of Western Georgia, USA. *NEW MEXICO MUSEUM OF NATURAL HISTORY AND SCIENCE*. (51): 209-213, 2010

K-12 Publications

Stanford, Samantha D., 2011. *Georgia, My State*: State Standards Publishing, 2011. 5 mini-books.

-*Rocks and Minerals of the Piedmont.*

-*Rocks and Minerals of the Blue Ridge Mountains.*

-*Rocks and Minerals of the Coastal Plain.*

-*Rocks and Minerals of the Appalachian Plateau.*

-*Rocks and Minerals of the Valley and Ridge.*

Conference Presentations

Kelley, Patricia H., Hattori, Kelly E., Sime, John A., **Stanford, Samantha D.**, Stokes, Kirsten E., and Torres, Chris R. *Analyses of Taphonomic Bias in the Canepatch Formation, Upper Pleistocene, Horry County, South Carolina.* Geological Society of America Southeastern Section Meeting, San Juan, Puerto Rico: March 20-21, 2013.

Korpanty, Chelsea A., Kerr, James P., **Stanford, Samantha D.**, Tedick, Amanda M., Kelley, Patricia H., and Dietl, Gregory P., *Fidelity of Molluscan Life and Death Assemblages: A Five-Year Study to Assess the Impact of Anthropogenic Pressures on a North Carolina Tidal Flat.* Geological Society of America Southeastern Section Meeting, San Juan, Puerto Rico: March 20-21, 2013.

Stanford, Samantha D. and Kelley, Patricia H., *Relationship of Drilling Predation to Molluscan Escalation as Indicated by Anti-Predatory Characteristics in the Choptank and St. Marys Formations, Maryland Miocene.* Geological Society of America Annual Meeting, Charlotte, NC: November 4-7, 2012.

Stanford, Samantha D. and Kelley, Patricia H., *Analysis of Ornamentation as an Aspect of Prey Escalation and its Relationship to Drilling Predation in Miocene Molluscs of Maryland.* Geological Society of America Southeastern Section Meeting, Asheville, NC: April 1-2, 2012.

Schwimmer, David R. and **Harrell, Samantha D.**, *Trace Fossils from Both Ends of Deinosuchus: Late Cretaceous Estuarine Crocodylian Bite Marks and Coprolites from West Georgia*. Geological Society of America Meeting Northeastern Section (45th Annual) and Southeastern Section (59th Annual) Joint Meeting, Baltimore, MD: March 13-16, 2010.

RESEARCH EXPERIENCE

MS Field Work:

University of North Carolina Wilmington, Wilmington, NC

- Field bulk collection of fossil molluscs from Choptank and St. Marys Fms, Calvert Co., MD and Waccamaw Fm, Duplin Co., NC. Produced several conference posters and ongoing master's thesis.

MS Lab Work:

University of North Carolina Wilmington, Wilmington, NC

- Cataloging of >3000 mollusc specimens
- Measuring length, width, and thickness of mollusc specimens with digital calipers
- Analysis of surface ornamentation for mollusc specimens

BS Field Work:

Columbus State University, Columbus, GA

- Vertebrate fossil collection at Blufftown and Cusseta Fms, Stewart Co., Georgia. Produced a publication in a peer reviewed journal and presentation at SEGSA, and Georgia Academy of Sciences 2010
- Invertebrate fossil collection at New Albany Shale (Clegg Creek member), southeastern Kentucky and Talladega Group (Erin Slate member), northeast Alabama. Produced a poster for CSU Tower Day conference 2010

BS Lab Work:

Columbus State University, Columbus, GA

- Created thin sections of coprolitic masses
- Cataloged and identified vertebrate material
- Skeletonized various vertebrate animals using live dermestid beetles
- Assembling skeletal remains of vertebrate animals

2010: Geology Field Course:

Columbus State University, Columbus, GA

- Measured geologic sections using Brunton compass, air photos, and topographic maps to infer geologic relationships. Produced reports and geologic maps based on field work within the Talladega Group, northeast Alabama

PROFESSIONAL TRAINING AND SKILLS

Training and Certification

- Completed training in *Lessons and Learners: Perspectives on learning frameworks and teaching strategies for informal educators*. Dr. Anne Shelley, Professor Emeritus of Education USC
- Certified in Eppley Courses: *Foundations of Interpretation, History of the NPS, NPS and the Federal Government, Wilderness Act of 1964* 2013
- American Canoe Association canoe and kayak safety training 2013
- American First Aid Heart Saver 2013

- American Red Cross Lifeguarding/First Aid/CPR/AED 2013
- Completed Federal Background Check NACI September 2013

Computer and Software Skills

- Advanced proficiency with Microsoft Word and M.S PowerPoint
- Intermediate proficiency with M.S Excel and Adobe Photoshop
- Basic proficiency with ArcGIS, AutoCAD, VassarStats, SISA, and PAST software

PROFESSIONAL AFFILIATIONS AND AWARDS

- Geological Society of America
- Paleontological Society
- Association for Women Geoscientists
- 2011-2012 North Carolina Shell Club Malacology Scholarship
- 2011-2012 UNCW Dept. of Geography and Geology Summer Research Grant
- 2010 Columbus Water Works Environmental Science Scholarship
- 2010 SMART Grant
- 2008-2009 STARS Study Abroad Scholarship

REFERENCES

Dr. David Shelley, Education Coordinator

Congaree National Park Old-Growth Bottomland Forest Research and Education Center
100 National Park Road
Hopkins, SC 29061
tel: 803.647.3966
david_shelley@nps.gov

Dr. Patricia Kelley

Professor Emeritus
University of North Carolina Wilmington
601 S. College Rd., Wilmington, NC 28403
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Dr. Sue Kezios

Director of STEM Learning Cooperative & Youth Programs
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