

# Sara M. Rutzky (Decherd)

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## EDUCATION

### **North Carolina State University.**

- PhD in paleoecology. Committee members: Reese Barrick, Barry Goldfarb, Dale Russell, Elisabeth Wheeler, and Mary Schweitzer

- Phd student August 2001

- Candidacy achieved April 15<sup>th</sup>, 2004

- Final exam passed July 7<sup>th</sup>, 2006

- Degree conferred December 20<sup>th</sup>, 2006

[Dissertation](#)

**Carleton College**, Northfield, Minnesota. Bachelor of Arts in geology. Graduated cum laude, June 2001.

## TEACHING EXPERIENCE

- **Geology instructor, Wake Technical Community College.** Duties include the lecture and laboratory portions of Geology courses in the college transfer program, and course development. Fall 2007 to present.

- **Part-time teaching faculty, Wake Technical Community College.** Teaching duties include the lecture and laboratory sections of Physical Geology and Environmental Geology in the college transfer program. Spring 2007.

- **Natural Sciences Tutor for NCSU Athletes.** 2006-2007.

- **Certificate of Accomplishment in Teaching program pilot member.** Program involved the compilation of a teaching portfolio and bibliography; attendance at seminars aimed to improve teaching skills; and evaluated teaching experience. Certificate received May 2006.

- **Secondary Instructor**, Water Resource Management. Class was team-taught with a faculty member. Duties include creating and leading inquiry-based lecture and laboratory exercises, leading field trips and discussion, and grading and evaluating student work. Fall semesters 2004 – 2006.

- **Teaching Assistant**, Historical Geology. Duties included planning and executing lesson plans, teaching and grading papers. Spring semesters 2004 - 2006.

- **Graduate Student Mentor**, for incoming geology graduate students. Fall 2004 and 2005.

- **Teaching Assistant**, Physical Geology. Duties included planning and executing lesson plans, teaching geology and grading papers. Fall semesters 2001 and 2003, spring semesters 2002 and 2003.
- **Teaching Assistant**, Honors section of Physical Geology. Class was team-taught with a faculty member. Duties included discussion leading, organization of activities, and field trip instruction. Fall 2002.
- **Geology Tutor**, for the NCSU football team. Spring 2002 semester.
- **Student Departmental Advisor**, geology department, Carleton College. Duties included planning departmental events and mediating student/ faculty relations. 2000-01 school year.
- **Geology Department Assistant**, Carleton College. Duties included upkeep and maintenance of labs and equipment. 1999-2000 school years.

## PUBLICATIONS AND PRESENTATIONS

**Decherd, S et al.** To be submitted in 2008. The photosynthetic rate and primary productivity responses of *Ginkgo biloba* to extremely elevated atmospheric carbon dioxide and oxygen. This paper is part of my dissertation.

**Decherd, S et al.** To be submitted in 2008. The nitrogen content and digestibility responses of *Ginkgo biloba* to extremely elevated atmospheric carbon dioxide and oxygen. This paper is part of my dissertation.

**Rutzky, S.** Dinosaur Nutrition.

-Keynote address given to the Chrissey Zoological Nutrition Symposium, Raleigh, NC. December, 2007.

**Decherd, S.** 2005. Feeding dinosaurian herbivores: the nutritive value and digestibility of Mesozoic foliage. *Journal of Vertebrate Paleontology*: 25 supplement (3), pp. 50A.

-Presented in a plenary session at the 65<sup>th</sup> annual meeting of the Society of Vertebrate Paleontology, October 2005.

Coulson, A., Barrick, R., Straight, B., **Decherd, S.**, Bird, J. 2004. Description of the new brachiosaurid (Dinosauria: Sauropoda) from the Ruby Ranch Member (Cretaceous: Albian) of the Cedar Mountain Formation, Utah. *Journal of Vertebrate Paleontology*: 24 supplement (3), pp. 48A.

-Presented at the 64<sup>th</sup> annual meeting of the Society of Vertebrate Paleontology, October 2004.

**Decherd, S.M.**, Piantadosi, Claude, A., Goldfarb, B., Wheeler, E., Barrick, R., Schweitzer, M., Russell, D. 2004. Photosynthetic and stomatal responses of *Ginkgo biloba* to highly enriched atmospheric carbon dioxide and oxygen. *GSA Abstracts with Programs*: 36 (5).

-Presented at the 2004 Geological Society of America National meeting, November 2004.

Wheeler, E.A., Bartlett, J.A., **Decherd, S.M.** 2004. Revisiting the Vantage Woods, Columbia Basalts, Washington. GSA Abstracts with Programs: 36 (5).

-Presented at the 2004 Geological Society of America National meeting, November 2004.

**Decherd, S.M.**, Goldfarb, B., Piantadosi, C., Barrick, R.E., Russell, D.A., Wheeler, E. 2003. Physiological responses of *Ginkgo biloba* seedlings to Cretaceous-like atmospheric compositions. GSA Abstracts with Programs: 35 (6).

-Presented at the 2003 Geological Society of America National meeting, November 2003.

**Decherd, S.M.**, Barrick, R.E., Goldfarb, B., Piantadosi, C., Russell, D.A., Wheeler, E. 2003. Producers and consumers: how did Western Interior plants support the megaherbivore fauna? Journal of Vertebrate Paleontology: 23 supplement (3), pp. 45A.

-Presented at the 63<sup>rd</sup> annual meeting of the Society of Vertebrate Paleontology, October 2003.

**Decherd, S.M.**, Goldfarb, B., Piantadosi, C., Barrick, R.E., Russell, D.A., Wheeler, E. 2003. Photosynthetic rate responses of *Ginkgo biloba* (var.: Magyar) trees to combined atmospheric enrichment of CO<sub>2</sub>, O<sub>2</sub> and increased atmospheric pressure. GSA Abstracts with Programs: 35 (1).

-Presented at the Geological Society of America Southeastern/Southcentral Joint Regional Meeting, March 2003.

Coulson, A., Bartlett, J., **Decherd, S.**, Kissel, R. 2002. Effects of Transport Induced Abrasion on Avian Skeletal Elements. Journal of Vertebrate Paleontology: 22 supplement (3).

--Presented at the 62<sup>nd</sup> annual meeting of the Society of Vertebrate Paleontology, October, 2001

## GRANTS RECEIVED

- **GSA Student Research Grant**, awarded spring 2004.

## COMMUNITY SERVICE

- **Member of the Advisory Board.** Raleigh, NC Florence Melton Adult Mini-School. Duties include sitting on the board that advises the mini-school director, plans school-related events, fundraises, and advertises for the school, and taking part in these various activities. 2006-present.

- **Board Member of Triangle Young Jewish Professionals Social Group and Liaison to Beth Meyer Synagogue.** Duties include planning events, advertising, and coordinating the goals of two organizations for mutual benefit. 2006-present.

- **Participant in the One God Three Faiths interfaith dialogue group.**

Members of four houses of worship including Beth Meyer Synagogue, Baptist Grove Church, St. Francis of Assisi Catholic Church, and the Raleigh Islamic Center gather to discuss religious differences and similarities in order to increase understanding and promote peace. 2006-present.

## HONORS AND AWARDS

- **Certificate of Accomplishment in Teaching Recipient.** Spring 2006.
- **University Outstanding Teaching Assistant Award Recipient,** awarded by the University Graduate Student Association of NCSU. Spring 2003.
- **Sigma Xi,** the Scientific Honor Society member
- **Phi Kappa Phi,** Academic Honor Society member

## LABORATORY EXPERIENCE

- **Cuticle Preparation and Slide Mounting,** as part of dissertation research. Used chromium trioxide to bleach cuticle from Late Jurassic and Cretaceous aged leaf fossils. Mounting was accomplished with Hemo-D and Canada Balsam. 2005-2006.
- **Foliage Primary Metabolite Characterization,** as part of dissertation research. Protein, sugar, starch, cellulose, and lignin were characterized using a variety of laboratory procedures and techniques including the Bradford Protein Assay, Enzymatic hydrolysis, spectrometry, and the Klason Lignin procedure. 2004-2006.
- **Stable Carbon Isotopes from Plant Material,** as part of dissertation research. Experience included packing samples, and interpreting results. 2004-2006.
- **Plant Ecophysiological Data Collection,** as part of dissertation research. Operated a Li-Cor 6400 Portable Photosynthesis System to collect real-time instantaneous net photosynthetic rate and other gas exchange parameters on Ginkgo biloba seedlings. 2002-2005.

## FIELD EXPERIENCE

- **Field hand,** Big Bend National Park, Texas. Prospected for and collected samples of Cretaceous-aged fossil wood throughout the park under the supervision of Dr. Tom Lehman and Dr. Elisabeth Wheeler. Summer 2004.
- **Student and Participant,** Field Experience 1999 and 2000, Dinosaur Provincial Park, Alberta. Helped to work two theropod quarries from discovery to removal of material and excavate material from Ceratopsian bone beds 138

and 168. Duties also included greeting participants and orienting them to the Park. Summers of 1999 and 2000.

- **Earthwatch Volunteer**, The Mammoth Site of Hot Springs, South Dakota. Excavated under the supervision of Dr. Larry Agenbroad and Dr. Jim Mead. Summer 1994.

#### MUSEUM EXPERIENCE

- **Royal Tyrrell Museum of Paleontology**, Created an interactive museum exhibit for the Royal Tyrrell Field Station located in Dinosaur Provincial Park, working closely with Dr. Don Brinkman and Dr. Michael Ryan. Summer 2000-summer 2001.

- **Changing Exhibits Hall Intern**, Oregon Museum of Science and Industry, Portland, Oregon. Helped to fabricate and design the travelling dinosaur exhibit 'Giants of the Gobi.' 1996-97 school year.

- **Student Intern**, The Oregon Zoo, Portland, Oregon. Duties included teaching visitors through animal handling and demonstrations. 1993-96.